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ABSTRACT

Evaluation and assessment procedures of Ontario, Canada principals and teachers at the Intermediate level (grades 7 and 8) were examined. Extensive questionnaires were returned by 134 principals and 225 teachers divided across the subject areas of English, Mathematics, Science, Languages, History, Home Economics or Shop, Arts, and Physical Education. The information elicited from principals and teachers dealt with ongoing assessment procedures, use of published tests, communicating achievement to parents, and training for assessment. There was a consistent tendency for academic skill area teachers, especially English and Mathematics, to use more formal and varied methods of evaluation and assessment, while non-academic skill area teachers reported a greater number of difficulties associated with assessment. All teachers indicated a desire for more standardized instruments, and for more training in the area of assessment procedures. The results also suggested that in many ways, grades 7 and 8 present an extension of the procedures and practices used at the elementary level. (Author/BW)

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Assessment of Student Achievement

EVALUATION OF STUDENT ACHIEVEMENT AT THE INTERMEDIATE LEVEL

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PM006 991

The Ontario Institute for Studies in Education

This research project was funded by the Ministry of Education, Ontario Grants-in-Aid Program for 1976-1977

ASSESSMENT OF STUDENT ACHIEVEMENT

Evaluation of Student Achievement

at the Intermediate Level

M. Wahlstrom, D. Raphael,

L. Jones, and E. Weinstein

The Ontario Institute for Studies in Education

Final Report

June, 1977

This research was funded by the Ministry of Education, Ontario

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Acknowledgments

This report is an extension of the Wahlstrom and Danley research contract completed for the Ministry of Education, Ontario in 1977. The major purpose in both reports is to describe the current state-of-the-art, as applied by teachers and principals, regarding the policy and procedures for assessment of student achievement in Ontario schools.

Our interaction with representatives of the Ministry of Education and personnel from school boards throughout Ontario provided us with a firm data base and personal insights into the issues, concerns, policy, and procedures in Ontario. We wish formally to thank all those who cooperated with us in this effort.

Many people contributed to the content of the report but the task of writing the various sections and describing in words how the many pieces fit together was primarily the responsibility of D. Raphael. Relevant research literature was reviewed and summarized by L. Jones whereas E. Weinstein provided the expertise to produce the descriptive data and optimal scaling results.

A special word of thanks must go to Carole Steinbring and Ray Danley, who provided valuable support throughout the duration of the project. Carole Steinbring was responsible for the preparation and coordination of the many components necessary to complete the final report. The frequent and expert advice provided at all stages by Ray Danley is gratefully acknowledged.

M. Wahlstrom

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Abstract

The present study reports evaluation and assessment procedures of principals and teachers at the Intermediate level (grades 7 and 8). Extensive questionnaires were responded to by 134 principals and 225 teachers divided across the subject areas of English, Mathematics, Science, Languages, History, Home Economics or Shop, Arts, and Physical Education. The information elicited from principals and teachers dealt with Ongoing Assessment Procedures, Use of Published Tests, Communicating Achievement to Parents, and Training for Assessment.

Principals reported no formal structure for initial assessments. All teachers tend to rely upon their own observations for providing these initial assessments and for end-of-unit and final grade evaluation. Academic skill area teachers were more likely to rely upon formal techniques including their own teacher-made tests and available standardized instruments. This tendency for formal evaluation is especially prevalent for English and Mathematics area teachers. Non-academic area teachers, who tend to rely upon less formal assessment techniques, report a greater degree of assessment difficulties in their particular areas.

Principals and teachers report favourable attitudes towards use of published tests. There is high report of receipt and use of test results and a general desire for availability of more measures. These favourable attitudes are especially prevalent for academic skill area teachers, especially in the English and Mathematics areas. Overall, attitudes towards published tests are surprisingly positive. Most schools use report cards consisting of either letter or number systems to communicate information about achievement to parents. Anecdotal comments are used by a significant number of schools as is the interview situation. Report card grades consist of a number of components crossing all subject

areas. Academic skill teachers are more likely to emphasize formal tests and take-home assignments. Almost no formal policies exist for conducting the teacher-parent interview, with actual format left to the individual teacher. Many concerns are raised about the interview situation by teachers. These concerns include no shows by parents and a need for both teacher and parent education concerning interviews.

For the most part teachers have had one course in assessment procedures at either a Faculty of Education or teachers college. (Teachers also report little training in interview techniques for communicating achievement information to parents.) Teachers rely upon their principals or vice principals for assessment information. They express a desire for both assessment training and resource materials. A real need for information appears in these areas.

Overall the results indicated that academic skill area teachers tend to rely upon more formal evaluation techniques including formal tests and take-home assignments. Non-academic skill area teachers report more difficulties in assessment. There is strong support for the value and use of standardized published measures. A desire for more such measures was expressed. There appears to be a real need for providing more information and resources to teachers to help them make assessments of student progress.

Finally, there was a tendency for responses relating to assessment and evaluation procedures at these Intermediate grades to be more similar to data presented by Elementary level principals and teachers. These findings suggest that evaluation procedures at the Intermediate level are reflecting either the reality of most grades, 7 and 8, being housed in K-8 classrooms, a similarity of training for Elementary and Intermediate level teachers, or a reflection of the close chronological proximity of grades 7 and 8 to grades K-6 (Elementary level) than to grades 11-13 (Secondary level). The implication of these findings for meeting the educational needs of the early adolescent in grades 7-8 remains to be explored.

Introduction

OVERVIEW

There has recently been concern expressed about the downgrading of standards in the schools. This apprehension was expressed by the Ontario Teachers' Federation:

> There appears to be widespread concern about levels of academic progress and behavioural standards being achieved in the schools. We may have reached the time when a comprehensive survey of school standards is needed so that remedial measures may be taken should these apprehensions prove to be well founded. (Report to the Cabinet by the Ontario Teachers' Federation; May, 1976)

The abolition of the Ontario Provincial Grade 13 external examinations seems to have lent some credence to the arguments of these critics. An attack has also been mounted against the elementary schools, by a cross section of people, accusing the schools of failing to impart the "basic skills," and calling for a return to those skills.

The now famous educational policy document *Living and Learning* (Ontario Ministry of Education, 1968) has been held responsible, in some circles, as the document directly responsible for the demise of the "basic skills" in the schools. *Living and Learning*, among other factors, resulted in a decentralized educational system. One of the results of this decentralization has been greater flexibility in the techniques used for assessing student achievement. This variability in practices has often been interpreted as laxity.

Because of the rather unsettled state of affairs one may ask what role the provincial government should play in assessing student achievement. Should government assume a "hands off" approach, should it provide broad goals/guidelines, or alternatively, should it provide specific

goals/guidelines for future policy? The study to be reported here was intended to and should provide some answers to these questions.

Because of these concerns regarding the quality of education being given in the schools expressed by educators, parents, various interest groups, and government officials, the Ontario Ministry of Education commissioned a province-wide study to determine current practices in the assessment of student achievement. The study was undertaken, under contract, by the Educational Evaluation Centre of the Ontario Institute for Studies in Education.

The research undertaken included a survey of assessment practices in the schools across the Province as well as an examination of various reporting practices of obtained results.[1] For convenience, three grade groupings were distinguished as follows: Elementary (defined as kindergarten to grade 6); Intermediate (defined as grades 7 and 8); and Secondary (defined as grades 9 to 13). The Wahlstrom and Danley (1977) report concentrated on the results for the Elementary and Secondary samples. This report presents the results of the Intermediate sample, presenting in detail responses related to assessment procedures. Comparison of results will be made to the data from the Wahlstrom and Danley (1977) report, and profiles of assessment procedures of subject area teachers will be presented.

The next section presents background to some of the issues involved in education at the Intermediate level. That section is followed by a review of the literature as it applies to the assessment and reporting of student achievement. It is noted that most of the relevant research and evaluative studies were carried out in the United States.

These review sections are followed by a detailed description of the methodology and sampling procedures. Following presentation of the methodology are results and discussion sections. The results will be presented and discussed under four separate subheadings as follows: (1) assessment procedures and practices, (2) use of standardized tests, (3) reporting student achievement, and (4) teacher education. Subsections contain data taken from both Principals' and Teachers' Questionnaires, and will be identified as such respectively where they do occur. Each chapter contains both results and a discussion of findings. An overall conclusion and some implications of the findings concludes the report.

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[1] Copies of the questionnaires for principals and teachers can be obtained by writing M.W. Wahlstrom at OISE, Department of Curriculum, 252 Bloor Street West, Toronto, M5S 1V6

THE INTERMEDIATE SCHOOL AND THE ADOLESCENT

The grade levels of 7 and 8 have been considered by many to contain a unique type of student. This typical student, in contrast to the elementary and secondary pupil, is in the period of early adolescence. The young adolescent is said to be in the midst of profound physiological, cognitive, and personality changes which call for a specialized type of education. In the United States attempts to meet these needs have been made by the institution of the Junior High School, commonly involving grades 7, 8, and 9. The Junior High School phenomenon resulted from a number of influences and has enjoyed great popularity in the U.S.

Another phenomenon which has gained some degree of acceptance is the Middle School concept. The Middle School also attempts to provide the optimal educational environment for the young adolescent, but finds its emphasis in either the 5-8 or 6-8 levels.

In Ontario the Intermediate Division, as outlined by the Ministry of Education, includes the grade levels 7, 8, 9, and 10 wedged in between the Primary and Junior Divisions and the Secondary Division. For a variety of reasons the popularity of the Junior High School and Middle School, with its distinct emphasis on various grades, has not caught on in Ontario. Thus, while the Intermediate Division is said to be a distinct section, in reality the actual state of the "middle grades" is quite varied.

In Ontario grades 7 and 8, the most commonly considered middle grades, may be housed in either:

1. Junior High Schools (grades 7-9)
2. Middle Schools (grades 6-8)
3. Senior Public Schools (grades 7-8)
4. Grades K-8 Schools
5. Grades K-8 Schools (separate housing for grades 7-8)
6. Grades 4-8 Schools
7. Grades 5-8 Schools.
8. Grades K-7 Schools
9. Grades 7-10 Schools
10. Grades K-10 Schools
11. Grades 7-13 Schools

A recent study, The Intermediate School Study (Chellow et al, 1973), as part of its design, included a survey of the various grade groupings of the various schools as well as an extensive review of the middle grade concept. This report serves as an excellent reference source for examining the history of these concepts. The next section includes a discussion of adolescence and its associated changes, a history of the Junior High School and Middle School concepts, and data reporting on the usual situations of grades 7 and 8 in Ontario. The review of the history of the different types of grade 7 and 8 housings is taken largely from the "Intermediate School Study." Figures on the incidence of these various types of housings are from data obtained in that study.

The Early Adolescent

While the often quoted theorists, such as Erikson (1968) and Piaget (Inhelder and Piaget, 1958), give the impression that the crises of adolescence occur in the late teens, evidence has accumulated which suggests that such turmoil may actually occur earlier, at the early teens and before (Hamburg, 1974).

The changes occurring at early adolescence are intrinsically tied to maturational and physiological changes. Associated with these changes are shifts in the adolescent's self-image and personality. Puberty, the onset of the secondary sex characteristics, leads to concern among both males and females. The young male begins to experience sexual excitement; the female begins to menstruate. The child, who in most cases is no older than 11 or 12, begins to enter the world of adulthood.

Early adolescence is also the time of the appearance of a qualitative, new type of thought. According to Piaget, the period is one which sees the onset of hypothetical-deductive reason (i.e. formal operations). At this time the child is not only bound to concrete reality but is able to imagine possibilities not present in fact.

The effects of these changes upon the adolescent's self-image and personality are complex and multifaceted. In many cases the adolescent's attention is drawn to the changes occurring in his or her body. The self-consciousness of these teenagers, especially if they are early or late maturers, is documented (Hamburg, 1974). The ability to consider hypothetical possibilities leads to a need to test possibilities. The young adolescent is no longer content to accept authoritative dictums

and rules. The rebelliousness of some youths at this time is related to these newly emerging cognitive abilities. Some writers have commented that these newly achieved cognitive abilities involving a relativism of thought leads to an epistemological loneliness on the part of the young adolescent. Since whatever was previously believed can now be questioned, the once sure world becomes an uncertain one. This epistemological loneliness is directly related to the young adolescent's acceptance of facts and cliques. By throwing oneself into a collection of commonly held beliefs, this loneliness can be avoided.

The Adolescent and the School

A number of research studies have indicated that individuals' specific strengths and abilities become crystalized at adolescence (Dye and Very, 1968). It is at this point that the individual may be perceived as academically or vocationally oriented. Guidance counsellors have a great responsibility at this time for deciding upon the course of study that the students will follow. These grade levels are also the time that the rotary system, involving different teachers for each subject, is introduced. In essence, it is a time for sorting and streaming. Thus, study of evaluation and assessment practices may be exceptionally important at this time in the child's career.

The Junior High School

The Junior High School phenomena involving grades 7-9 in separate buildings with unique curriculum originated in the late 19th century in the United States, and has seen a rapid expansion and growth to the present day.

The typical grade grouping for the Junior High School of 7-8-9 had its origins in the United States in the early 1900's. There were three distinct developments leading to this concept. The first was a concern by college or university officials to begin intensive training in the academic skill areas at ages earlier than the secondary school. The second influence was a need to provide a post-elementary but not pre-academic education for the increasing number of students attending schools for longer periods of time. The third rationale was a perceived need to help meet some of the needs of the early adolescents. Table 1 illustrates the rapid spread of the Junior High School in the United States, and is taken from Van Till, Vars and Lundsberg (1967).

TABLE 1

Growth of the Junior High School Concept
in the United States

Year	Number of Schools
1920	385
1930	1,850
1940	2,400
1950	3,225
1960	5,000
1969	8,000 (estimated)*

* Includes middle schools

A typical rationale (Van Till, Vars, and Lundsberg, 1967, p.35) for these schools is as follows:

1. Continuing and extending the general education program of the elementary schools, including development of the basic skills;
2. Providing for a transition between the organizational approach of the elementary school and the senior high school;
3. Introducing new subject areas and additional specializations within basic areas;
4. Providing opportunities for students to discover and practice their own interests and abilities;
5. Providing appropriate experiences to assist and guide the rapid physical development which is characteristic of early adolescence;
6. Providing experiences that will develop the social competence needed as students enter adolescence;
7. Providing experiences that will assist individuals and develop values in building a philosophy of life; and
8. Providing ample opportunity for self-management and the development of leadership under supervision.

The Middle School

The Middle School, designed for grades 5-8 or 6-8, also emerged in the United States and was seen as an alternative to the 7-9 set up of the Junior High School. The beginnings of the Middle School concept occurred in the 1950's with the following rationale:

1. A senior high school should have children for a full four-year period (grades 9-12) in order to maximize academic achievement;
2. The junior high school is too much a carbon copy of the senior high school, and as such does not deal with the specific needs of the early adolescent; and
3. The increasingly earlier onset of puberty makes the early inclusion of the individual into the middle school a logical and reasonable necessity.

A typical exposition of the characteristics of the middle school is cited in an article which appeared in The Education Digest (1969):

> "The middle school concept, namely to provide an educational system focussed on the special needs and interests of the pre- and early adolescent, suggests that certain features must be part of the functioning middle school:
> 1. A span of at least three grades between 5 and 8 to allow for the gradual transition from elementary school to high school instructional practices;
> 2. A merging departmental structure in each high school grade to affect the gradual transition from the self-contained classroom to the departmentalized high school;
> 3. Flexible approaches to instruction (team teaching, flexible scheduling, individualized instruction, independent study, tutorial programmes) and other approaches aimed at stimulating children to learn how to learn;
> 4. Required special courses toward an interdepartmentalized form and frequently within an interdisciplinary or multidisciplinary approach. The special subjects included are music, home economics, industrial arts, and foreign languages;
> 5. Guidance program as a distinct entity to fill the special needs of this age group;
> 6. Faculty with both elementary and secondary certification, or some teachers with each type (until special training and certification are available for this level); and
> 7. Limited attention to inter-school sports and social activities."

In Ontario, however, a number of other arrangements have developed which are different from the Junior High and Middle School structures. Descriptions of these are presented from The Intermediate School Study (Chellow, 1973).

The Senior Public School (grades 7 and 8)

The Senior Public School, while a frequent intermediate level grouping in Ontario, has not received as much attention in the literature as the Junior High School or the Middle School. It would appear that, in the United States, the 7-8 grouping has not been perceived as viable; the major reason being that, because a two-year school turns over at least half its population each year, it is difficult to develop sequential learning programs of sufficient duration or to develop a "school identity."

In Ontario, however, the Senior Public School has met with considerable acceptance. The Toronto Board of Education, which established a number of Senior Public Schools from 1950 on, cited the following advantages of the Senior Public School (as against K-8 organization):

1. The pupil is provided with a new school environment at the beginning of adolescence;
2. The young children are left behind. The grade 7 pupil begins to take on more responsibility;
3. The number of pupils in grades 7 and 8 concentrated in the Senior Public School permits an organization which will provide special teachers for special subjects such as physical education, shop, art, music, science, speech and drama, and guidance; and
4. While the pupil has the benefit of specialized programs for the subjects mentioned, at the same time he is not thrown into a completely rotary program as is the case in grade 9 in the secondary schools. The pupil in the Senior Public School remains for one-half of each day with the homeroom teacher, who is responsible for instruction in English, Mathematics, and Social Studies.

The Board also outlined disadvantages of the Senior Public School, these being problems created by increased distances which students had to travel and the cost involved in establishing Senior Public Schools.

The K-8 and K-(7-8) Grade Organization

These school grouping types have existed historically and there is no rationale for these particular groupings. For the most part, a major criterion seems to be efficient use of school buildings and, in a number of instances, small or widely-spread populations.

The following statement from the York County Board of Education (1972) presents the case that an appropriate program for early adolescents can be established within a two-tier (i.e. K-8, 9-13) system.

> "We accept that the three-program tiers might best be organized as two administrative tiers, but that flexibility in the combinations would be likely, even desirable.
>
> *Discussion.* This is a very divisive issue. Most briefs received recommended an intermediate school (or administrative) tier of about three year's duration. A survey of 74 teachers who taught in both unitary (e.g. K-8) schools and intermediate (e.g. senior public or junior high) schools showed that the majority favoured the intermediate school tier (for themselves as teachers and for the student as learners).
>
> The majority of the committee, however, did not consider the arguments offered in the briefs and by the survey respondents for a separate intermediate school administrative tier sufficiently strong to make the intermediate school a necessary part of the organizational pattern.
>
> However, it was granted that children about 11 to 15 years of age had needs different enough to warrant a program tier and environment geared to their characteristics. Further, it is recognized that for a few students there may be over-riding reasons, centered on social and physical development, which may call for relocation in a more senior administrative tier at different points in the progress through a program.
>
> To ensure a continuity in program and purpose and to hold to a minimum the problems due to relocation, one principal should administer two-program tiers wherever practical. This might be feasible where two-program tiers can be housed in one large building, or where buildings are in close proximity. What makes a "school" is not a building, but a unity embracing purposes, resources, and leadership.
>
> Depending on several factors, such as population patterns or existing buildings, the second program tier (early adolescence) might therefore be administered jointly with the childhood program tier or with the young adulthood program."

Thus it can be seen that there are a number of possible arrangements involving grades 7 and 8, the ages chosen as best representing children of the intermediate division. The following section provides data concerning the actual number of schools corresponding to each. This data is taken from The Intermediate School Study (Chellow, et al, 1973).

ONTARIO STRUCTURE OF INTERMEDIATE LEVEL SCHOOLS

The Intermediate School Study distributed questionnaires to 130 Boards of Education in Ontario. One hundred and eight questionnaires were returned. Table 2 presents the total number of schools in each grade-grouping type broken down by enrolment.

TABLE 2

Various Housings of Grades 7 and 8 in Ontario Schools
(from Chellow et al 1973)

Student Enrolment	K-8	K(7-8)	7-8	6-7-8	7-8-9	9-10	5-8	Other
Over 1,000	4	9	1	2	2	11	0	2
500-1,000	260	74	58	28	28	27	0	4
250-499	620	79	73	21	4	16	10	6
Less than 250	515	12	18	12	1	20	4	13
Total Number by grade grouping	1,399	174	150	63	35	74	14	25
Total Number of schools	1,934							

It can be seen that by far and away the most common arrangement in Ontario for the grades under study is the K-8 format. A much smaller proportion of schools is in either the Junior High or Middle School format.

The researchers (Chellow et al 1973) indicated some tendencies in reported rationales of boards for these arrangements.

> "It should also be noted that, while some boards indicated a complex of several of the above criteria, other boards indicated no rationale. There was a general tendency among boards with specifically designed intermediate level schools (e.g. 7-8, 6-7-8, 7-8-9) to name criteria referring to the nature and needs of early adolescent students. However, the consequent fact that other boards (having K-8 schools, for example) indicated primarily historical or demographic reasons for the existence of their schools cannot, of course, be interpreted to mean a lack of commitment to the nature and needs of early adolescent students."

Grades 7 and 8 and Evaluation Practices

The value of the present study lies in the examination of current assessment practices for these hypothesized important grades of 7 and 8. Unfortunately, it was not possible, due to small numbers, to compare evaluation practices among personnel in the various structural set ups to each other to examine these possible effects of various housings. These various set ups were presented to provide the reader with a flavour of the Intermediate situation in Ontario. Data has already been compiled (Wahlstrom and Danley, 1977) on assessment practices at the Elementary/secondary levels. Examination of this grade 7 and 8 data from this study in relation to the other data will allow for testing the hypothesis of uniqueness of these grade levels. It would be expected that principals' and teachers' reported responses would tend to fall midway between data for the elementary and secondary levels. On the other hand, the uniqueness of the intermediate level might lead to some surprising and novel responses.

ISSUES INVOLVED IN STUDENT ASSESSMENT

Rationale for Assessment of Student Achievement

Terwilliger (1971) claims that there are three distinct reasons for assessing the achievement of students. These are as follows:

1. To determine whether a student has acquired specific skills or knowledge considered essential by the teacher;
2. To diagnose strengths and weaknesses of a student as revealed by the pattern of achievement demonstrated; and
3. To determine the achievement of a student with reference to others who have received comparable instruction.

The first two purposes are concerned with instructional decisions, a major concern of teachers. They have been referred to as formative evaluation (Bloom, Hastings, and Madaus, 1971; Scriven, 1973), and are employed mostly for diagnostic purposes and to plan further remedial action if the diagnosis so indicates.

The third reason for assessing student achievement is more concerned with administration (e.g. placement), and has been referred to as summative evaluation (Bloom et al, 1971; Scriven, 1973). One specific purpose of summative evaluation is the grading of students and reporting to parents and/or administrators. Summative and formative evaluation differ along lines such as purpose, time, and generalization (Bloom et al, 1971). However, a single test might be used by a teacher for both formative and summative purposes. For purposes of this study, summative evaluation is usually employed at the end of a term, course, or program, for purposes of grading, certification, or evaluation of progress. Similarly, formative evaluation is used for evaluation of instruction and student learning.

Bases of Student Evaluation

The National Education Association (1970) lists three things as the basis for marking and reporting pupil progress. They are (1) objectives of the school, (2) growth and achievement, and (3) standards and ability to learn. NEA also noted that in order to accurately report on pupils' progress several instruments and techniques of assessment should be employed. Some of the instruments and techniques suggested by NEA are informal tests, standardized tests, class participation, procedures and product evaluation which includes marking and rating scales, and projects and reports.

Teachers' Roles in Evaluation

The teacher performs two functions in the assessment of student achievement (Terwilliger, 1971). The first is collection and storage of data on each student. This is done through formal and informal means, ranging from impressions by the teacher to formal tests. Familiarity with the construction and administration of tests is a "prerequisite to the proper evaluation of student achievement." (p.12) The assumption is that teachers possess the skills gained through formal training in testing and measurement.

The second function of the teacher is judging the data collected. The models and standards used for judging the data collected will be discussed later. It is sufficient to say at this point that the models or standards most frequently used are empirical norms, estimated norms, or criterion-based performance (Bloom et al, 1971) or absolute and normative (Terwilliger, 1971).

Components of Assessments

Several studies and writers have indicated that different factors make up the grade assigned to a student at the end of a unit or year. The question might be asked whether teachers use a formula in weighting the factors and whether differences exist across subject areas. Terwilliger (1966) reported that over half of a national sample of teachers reported using a formula to weight tests, homework, etc. Weighting was less popular in school subjects such as art, music, home economics, and industrial arts. Further analysis of the results revealed that teachers in the mathematics and science domains were giving most weights to test scores and those in the areas of language arts and social studies were giving equal weights to tests, homework, and special projects.

Teachers' Abilities to Provide Assessments

Several writers, both professional and lay people, have noted, however, that teachers are inadequately prepared in testing and measurements (Bowman, 1961; Noll, 1971; Rosner, 1961). The use and purposes of standardized tests in schools have increased rapidly throughout the century (Kirkland, 1971). For example, a survey by Goslin (1967) of school principals, revealed that standardized tests were used in schools every year. Similarly, Coleman (1966) reported that over 90 percent of pupils in elementary and secondary schools were given some kind of intelligence or achievement tests. Lastly, Goslin, Epstein, and Mallock (1965) reported that of 714 elementary school principals surveyed, only one reported the use of no standardized testing program, neither were there any plans to initiate one.

Terwilliger notes that evaluation and measurement are often used as if they are synonymous. He argues, however, that they are different in that measurement is a part of student evaluation. What distinguishes measurement from evaluation most is that the former is carried out according to prescribed standards which usually results in standardization, while the latter is not. Two of the most popular forms of measurement are tests and examinations, but homework, papers or reports, special projects, workbooks, etc. are also used as forms of measurement. Terwilliger (1971) notes that it is important that all data collected be used as measurement which requires that they be quantifiable. Too frequent use of letter grades may prevent teachers from easily quantifying

such student work as projects and papers. The training of teachers in techniques of educational measurement has been stressed by several writers. Terwilliger notes that a survey by Mayo (1967) indicated that "teachers have, at best, minimal skills in measurement." (Terwilliger, 1971, p.22)

Grading and Marking

The general area of grading and reporting student progress remains a controversial one. Procunier (1975) makes a very relevant point as follows:

> "Like so much of what we do in education, reporting of pupil progress seems to have to be controversial. Seldom can we get agreement on what is appropriate, desirable, and/or acceptable." (p.3)

The result is that very little has changed, or the more things have changed, the more they remain the same. Hiner (1973) pointed out that:

> "...it's not that the topic has been ignored by professional educators. On the contrary, grading has been the subject of a continuing debate since the turn of the century" (p.356).

In fact, the debate has been so emotional at times that writers, including John Holt (1968), have suggested that grades should be eliminated from the educational system. Spray (1969), reacting to arguments and efforts towards the elimination of grades, commented:

> "Such a statement is without merit and certainly unrealistic, when the needs and demands of both business and higher education for student achievement measures are considered" (p.338).

Similarly, Kindsvatter (1969) noted that "current practices represent a tradition - an accepted and expected part of the school's function" (p. 332). Parents and students, Kindsvatter continues, "place great faith in the notion that marks represent a valid measure of the student's academic success" (Ibid) and will therefore resist any attempts to depart from traditional practices. As a result of pressures from parents, students, and other interested parties, innovations in marking and reporting pupil progress, like most other educational innovations, enter the educational scene with the usual fanfare. They are, however, short lived, and their funerals often go unattended.

There are many arguments against grading. One is that very few teachers grade alike. Strang (1955) reported that in a national study conducted by the National Education Association, in which an identical

mathematics paper was given to 111 different teachers, grades were assigned, ranging between 21 and 88. The interested reader is encouraged to contact Ebel (1974), Kindsvatter (1969), and McMahon (1971) for a list and discussion of, and counter-arguments to the objections to grading.

Criteria for Assessment of Student Achievement

The National Education Association (1970) devoted an entire monograph to the discussion of assessing and reporting pupil progress. The report traced the evolutionary development of report cards in America, noting that the earliest "contained simple little messages, and were generally quite colorful and artistic" (p.7). Included in these early report cards, which persisted for a number of years, were comments made in reference to achievement in subjects such as penmanship, spelling, and reading.

In 1972 the National Education Association (NEA) reported that by the turn of the present century the emphasis had shifted to "percentage, grades, and the five-point scale" (p.7). However, the beginning of the twentieth century heralded the standardized testing movement which concerned itself with providing fairly rigorous and objective systems of grading students. This enthusiasm was somewhat short-lived, however, because by the 1920's, when the progressive movement in education gained momentum, it became apparent to many that a single mark, whether "reliable", was a poor indicator of the level of competence of the student. As NEA noted, "a single grade conveyed so little information about strengths and weaknesses in a given area" (p.7).

As a result of the progressive movement, a dramatic shift took place. The emphasis shifted to evaluation, the rationale being that preoccupation with tests had resulted in too much concentration on knowledge (tangible outcome) as opposed to intangible outcomes." NEA reported an eight-year study conducted by the Progressive Education Association which lists three basic criteria for evaluation:

1. That there should be a direct relation between evaluation and reporting on the one hand and the purposes and philosophy of the school on the other;
2. Evaluation should be comprehensive, taking into account all objectives of the school; and

3. That teachers should be intimately involved in constructing evaluative instruments and other relevant instruments/forms for recording and/or reporting.

Of course Gronlund (1974) and Strang (1955) went even further and suggested that teachers, parents, pupils, administrators, guidance workers, and other specialists should be involved in developing a report form.

Purposes of Grading

Wringle (1947), in his book *Improving Marking and Reporting Practices*, lists four purposes of marking, all of which are not mutually exclusive. These four purposes are: administrative, guidance, information and motivation, and discipline. Similarly, Gronlund (1974) identified four functions of marking and reporting systems: instructional, information, guidance, and administration. Strang (1955) discusses and lists the administrative and information and motivational purposes of reporting pupil progress. Ongiri (1973) lists the purposes or functions as administrative, guidance, and information. To bring together all positions it would therefore seem that the purposes of marking and reporting pupil progress can be commonly listed as: (1) administrative, (2) guidance, (3) information, (4) motivation and discipline, and (5) instructional.

Frames of Reference in Grading

There are three frames of reference usually employed in judging students' performance. These are:

1. performance relative to the group (norm-referenced);
2. performance relative to an absolute standard (criterion-referenced; and
3. performance relative to the individual's past achievement or potential (Gronlund, 1974, p.15).

Terwilliger (1971) listed a fourth frame of reference as "growth." This frame of reference is used to judge change during the course of instruction and could be an integral part of Gronlund's third point. The norm-referenced judgments are exemplified in standardized tests. Criterion-referenced judgments depend more on students' performance in relationship to the teachers' expectations. Judgments based on past achievements are self-explanatory but can be very confusing, especially where test results are quite unreliable, which, unfortunately, is the rule, not the exception.

Thus, Gronlund suggested that reports based on students' past achievements should not be used in place of more reliable measures. In fact, Gronlund went so far as to suggest that a combination of these systems be used in reporting pupil progress. However, Terwilliger (1971) commented that although a combination of all four frames of reference (quadruple system) would be the ideal, because it is comprehensive and gives a choice for relevance, it is very unlikely that a feasible system could be devised, not to mention the amount of extra effort that would be required of teachers. Teachers, for example, would require sophisticated training in the use of the system in reporting to parents.

Terwilliger (1966), in a survey of 129 secondary schools to determine what frame of reference was preferred, if any, and officially adopted, found that no one frame of reference dominated the marking scene at the time, as noted in Table 3 Terwilliger, however, prefers the normative frame of reference, although he suggested that the categorial system (absolute standards) might be more appropriate, especially in subject areas that are more hierarchically organized (i.e. mathematics) or at the K-3 level. The trend towards achievement with respect to ability reported by Smith and Dobbin (1960) seems to receive support from the Terwilliger survey. The four frames of reference may be combined to yield various marking systems e.g. single, dual, triple, and quadruple. For example, if all four frames of reference are used in different dual combinations, the result will be six different dual systems. Terwilliger (1971) claims that of the six combinations the "ability-normative is by far the most popular" (p.114).

TABLE 3

Percentage of 129 Schools Using Each Frame of Reference in Marking and Reporting Student Progress*

Frame of Reference	%
Absolute standard	27
Growth	5
Achievement with respect to ability	29
Achievement with respect to class	16
No specific framework adopted	20
No response	3

* Adopted from Terwilliger (1971)

Current Practices

What are some of the current practices in marking and reporting pupil progress? Gronlund (1974) lists traditional report cards (e.g. A,B,C,D,F) letters or written reports and parent-teacher conferences as examples of practices currently in vogue. NEA (1970) lists letter-number systems, check lists, anecdotal records, behaviour descriptions, correspondence with parents, teacher-parent conferences (interviews), and self-evaluation as typical practices. The above list illustrates that a wide variety of techniques are currently employed in determining and reporting pupil progress. As NEA so correctly noted, "It would not be possible to decide which of these methods and forms is best. Each has advantages and disadvantages, some are better suited to a particular kind of school or community than others" (p.19). It seems accurate to add that some techniques and/or forms might be more suitable for a particular subject area than others.

Despite the multiplicity of techniques currently employed, certain regularities and preferences may be gleaned from investigations into the marking and reporting practices of various school system, both national and local. For example, NEA (1970) conducted a survey to determine the marking and reporting practices of public school teachers. The results of the nation-wide survey, shown in Table 4, indicate that letter grades were given top priority, or were being used by 72% of elementary teachers and 83% of the secondary teachers. According to Thorndike (1969) the findings can be interpreted in two ways. Firstly, it might be an indication that the letter grade system is serving a useful purpose, and secondly, that the system has become so much a part of the culture that any attempt to revamp it might meet with severe resistance. As Hiner (1973) noted, "grading is a ritual" (p.356), and Kindsvatter (1969) notes, "Marks are a necessary evil" (p.332). There is no doubt that the letter grade system serves a useful purpose, and, in fact, if the survey had indicated otherwise, it would be a surprise to most people, realizing that the letter grade is a requirement for purposes of administration, discussed earlier. Gronlund (1974) suggested that in lieu of the findings in support of the letter grade system, the best approach seems to be that every effort be made to improve the system, and that the system be supplemented with more detailed and meaningful reports of student learning" (p.2).

TABLE 4

Percentage of Teachers Using Each Method
in Reporting Student Progress to Parents*

Method of Reporting	E/T	S/T
Letter grades	72%	83%**
Parent-teacher conferences	60	20
Written descriptions - performance	24	10
Number grades (e.g. 1-5)	10	9
Percentage grades	2	10
Pass-Fail reports	8	3

Abbreviations: E/T-Elementary Teachers, S/T-Secondary Teachers
* Adopted from NEA Research Division (1970)
** Percentages were rounded to the nearest whole percent

Use of Parent-Teacher Interviews

The survey also indicated, among other things, that a greater percentage (three times as many) of elementary school teachers were making use of the parent-teacher conference than were the secondary teachers. Thus it would seem that teacher-parent conferences are more popular with younger children. For example, NEA (1970) reported that over 70 percent of 1,103 public school systems having Kindergarten reported using the teacher-parent conference regardless of enrolment grouping, while less than 30 percent in each category were using the letter grades so popular at Secondary and Senior Public School levels. Otto (1957) also reported that more than 90 percent of elementary school teachers in the state of Texas preferred the teacher-parent conferences as a mode of reporting to parents. Teacher-parent conferences are used most frequently at the secondary school level when special problems arise (Gronlund, 1974). Gronlund noted that the conference will likely be most effective if "sound conference techniques are employed", and recommended in-service training and role playing so that the required skills can be acquired. For hints with regards to preparation for and conducting the conference, the reader should contact Gronlund (1974), and for some important "don't's" the reader should see Bailard and Strang (1964).

On the whole, the report suggests that very few secondary school teachers were willing to go beyond the letter grades and supplement the system with parent-teacher conferences or written descriptions of performances. This, of course, is not surprising, since most secondary schools operate under the rotary system, where the teacher sees a student for only a few hours per week, and the teacher might therefore feel more competent to rely on "objective" measures of student achievement.

Chansky (1965) conducted a study to determine what preference teachers and parents might have regarding a report card format, and also to determine whether the two subject populations differ in their preferences. The result indicated that both teachers and parents preferred knowledge items rather than skill or attitude items. There were no significant differences between the teachers' and parents' preferences. Every parent in the study indicated that they preferred to have teachers inform them of the childrens' knowledge (knowledge items) as opposed to skill or attitudinal matters.

As was pointed out above from the NEA (1970) research, and later suggested by Gronlund (1974), the report card remains the primary, most popular means of reporting pupil progress. Also mentioned above was the fact that several investigators have stressed the need for the traditional letter grade format to be supplemented by other types of information. Supplementary information may include academic-intellectual, as well as information from attitudinal assessment. Suggestions range for a 'trait checklist' (Procunier, 1975), to a list of objectives for each subject area (Wrinkle, 1947), followed by a grading format such as 'satisfactory' or 'needs improvement.'

Mousley (1972) reported a study conducted to determine the current format of the report cards of elementary schools. The survey was conducted in 50 States and involved 100 school systems. The results are shown in Table 5. The results were consistent with the NEA (1970) study reported above. The traditional letter grade dominated the report cards, but is used less frequently in grades 1-3 than in grades 4-6. Two and three letter systems, as well as a checklist of objectives were also more popular practices of grades 1 to 3 than grades 4 to 6. The reason, Gronlund (1974) pointed out, for the popularity of the two and three letter systems, and the checklist of objectives was probably a result of "attempts to de-emphasize competitive grading at the primary level" (p.4).

TABLE 5

Percentage of Teachers Using Each Method
According to School System Size*

Method of Reporting	Size of System		
	25,000 or more pupils	3,000-24,999 pupils	Less than 3,000 pupils
Letter grades (e.g. A-F)	80%	76%	77%**
Parent-teacher conferences	37	40	43
Written descriptions	18	19	15
Number grades (e.g. 1-5)	11	10	7
Percentage grades	6	6	8
Pass-Fail reports	5	6	5

* Adopted from NEA Research Division (1970)
** Percentages were rounded to the nearest whole per cent

Trends in Reporting Assessment

A search of the literature by NEA (1972) with regard to current trends in marking and reporting pupil progress indicated the following trends summarized by Gronlund (1974) as follows:

1. The use of committees of students, parents, teachers, and other school personnel to improve marking and reporting practices;
2. The use of both report cards and parent-teacher conferences (interviews) for reporting pupil progress (especially in the elementary school);
3. The use of report cards that are specifically adopted to particular grade levels;
4. The use of more detailed reports, such as behaviourally stated objectives for subject fields, social adjustment, personal development, and work habits;
5. The use of marking systems that compare a student's learning progress with his own potential (especially in elementary schools), as well as with the achievement of others;
6. The use of report cards that provide space for both teachers' and parents' comments;

7. The use of less frequent reporting (e.g. twice a year); and
8. The use of student evaluation as an adjunct to teacher evaluation of learning progress.

SUMMARY

The above review of the literature with regards to the grading and reporting practices of schools might be regarded as fairly exhaustive as far as the present investigation is concerned. Empirical studies reveal a heavy emphasis on and concern for methods of reporting. Very few studies were concerned with (1) the format of a report card, (2) the composition of grade reported, (3) the structure of teacher-parent interviews, (4) types of assessments and techniques employed, and (5) the ability of the teacher to effectively measure student achievement, i.e. use of formal tests and construction of informal tests. This is not very surprising since very little has changed in marking and reporting since the 1930's, except for more emphasis being placed on use of teacher-parent conferences, particularly at the elementary school level. Very little research has been conducted to determine the practices employed by junior high schools, probably because the junior high school is a more recent phenomenon.

To date, very few studies have been conducted in Canada to investigate current marking and reporting practices. In fact, any reports in professional journals could be classified as anecdotal rather than empirical. One possible reason is because of the sensitivity of the issues involved, and as Ebel (1974) commented: "few school patrons are willing to accept the degree of adverse consequences simply to test the effect of some proposed change. So decisions on grading policies are likely to continue to be based more on experience and rational inference than on experimental data" (p.5). The failure to investigate marking and reporting practices is very critical since Ontario no longer has a province-wide school leaving examination. The result is that teachers have the main responsibility for assessment, especially summative student evaluation. Wahlstrom and Traub (1972), commenting on the implication for teachers, noted:

> This being the case, if summative evaluation continues to be required for the purpose of deciding who is admissible to one or another type of post-secondary education, as they are at present in Canada, then it logically follows that teachers must be competent to make equitable summative evaluations of students (p.27).

The authors' frame of reference is senior secondary and post-secondary institutions, the comments are nevertheless relevant to the junior high schools, since decisions are continually being made about student promotions at the end of an instructional sequence, at the end of a unit, at the end of a year, and also at the end of a term. The ability of the teachers, re: the formative student assessment, is also critical.

The trend towards individualization of curriculum and instruction and non-gradedness is also critical. Rather than making life easier for the teacher, as it would appear, individualization and non-gradedness place a premium upon the teacher's role and abilities, because it now requires evaluation of each student in a different way according to the student's own style of learning. Wahlstrom and Traub (1972) noted:

> "If the trend toward ungraded and individualized programs continues, and if student evaluation continues to be an important part of education, then it is clear that teachers will have to be highly trained in the construction and use of tests and other observational devices, and in the use of test results, and in observation in the evaluation of students."

Stetz (1975) noted that norm-referenced tests are inappropriate as assessment instruments for individualized programs and the ungraded school. He advocated the use of criterion-referenced tests. Since there aren't many published criterion-referenced tests, the responsibility for their construction must be delegated to teachers. Teachers, therefore, need special training in tests and measurement if they are to adequately assume the responsibility delegated to them. One section of the study reported here was therefore designed to find out the extent to which tests are used, and whether teachers have any formal training in the use of standardized tests and what use teachers make of test results. Goslin (1967) reported that the most frequent reasons given for the use of tests by secondary school administrators were (1) counselling of students, (2) to enable pupils to gain insight into their strengths and weaknesses, (3) guidance of pupils into appropriate curricula, and (4) counselling of parents.

The above observations are also critical with respect to reporting student progress to parents. If ungraded and individualized programs continue, it seems consistent that teacher-parent conferences will gain popularity, even as a supplement to the report card. No one will argue that the teacher, in reporting to parents, needs skills, especially interviewing skills beyond those acquired in traditional staff conferences.

As Gronlund (1974) notes:

> "It is not expected that knowledge, alone, will result in needed conference skills, however. Teachers who are inexperienced in conducting interviews with parents should be provided with inservice training, including some role-playing of typical parent-teacher conferences. Assuming the role of a parent can provide insight into the parents' feeling and assuming the role of the teacher provides practices in the use of conference skills" (p.38).

The parent-teacher conference is especially critical for teachers who use standardized tests in assessing student achievement. It is critical, for example, for the teacher to understand what tests measure, what scores mean, how accurate the scores are, and how the information is to be used (Gronlund, 1974). Formal training in the construction of tests, the use of standardized tests, and reporting test results is, therefore, very important.

The above concerns, together with the expressed concerns of educators, government representatives, and parents over the quality of education that students are now receiving, accompanied by abolition of external examinations and the reduction of standardized testing by school boards, resulted in a study by Wahlstrom and Whitmore (1974) investigating current practices in assessing student achievement in Ontario's schools. The Wahlstrom-Danley (1977) Report concentrated on the elementary and secondary school grades. This section is intended to supplement the findings of that report by reporting on the assessment of students at the intermediate level--grades 7 and 8.

The study reported here involved the collection of information regarding current practices in assessing and reporting student achievement in Ontario schools. One questionnaire required completion by principals, and another by teachers.

The study, it must be stressed, was not conducted to determine "right" or "wrong" policy, because a review of the literature will reveal little consensus on assessment of achievement, and even less on reporting student achievement. However, for purposes of this paper, an evaluation of such practices will be attempted.

Methodology

INTENT

The primary intent of the study was to assemble data describing procedures used in Ontario for the assessment of student achievement at grades said to be in the Intermediate level. The Intermediate sample was defined to include grades 7 and 8 only. There were several reasons for this decision, the major one being that these two grades are generally acknowledged to be Intermediate grades. Grades 9 and 10, which might have also been included in the Intermediate sample, are not so regarded as is indicated by the frequent inclusion of grades 9 and 10 in secondary schools.

THE SAMPLING PROCEDURE

The procedure used for selecting a sample of schools for this study was devised to ensure that:

1. The sample should be, in some defined sense, a representative sample of Ontario schools, so that results obtained from the sample could be generalized to most schools in Ontario;
2. The sample would contain schools varying on characteristics which were thought to have an effect on the procedures used to assess student achievement;
3. The total number of schools selected would be within the practical constraints of time and money in order to complete the study, yet be sufficiently large to represent the wide range of characteristics found in Ontario Schools.

The first objective was realized by defining a population of schools of interest and by sampling randomly from this population in accordance with requirements 2 and 3. Objective 2 was realized by stratifying the population according to those characteristics of interest. Objective 3 was met by simple calculation once the strata had been defined.

The Intermediate sample was drawn from schools containing the following grade groupings:

1. grades 7 and 8 only;
2. grades 6 to 8;
3. grades 1 to 8;
4. kindergarten to grade 8.

The Intermediate subpopulation defined in this way includes 1,894 schools and 271,222 students. No other grade grouping containing grades 7 and 8, which represents a "substantial" (arbitrarily defined as more than 3%) percentage of the sub-population of schools, has been left out.

The Intermediate sub-population was stratified according to:

1. separate schools and public schools;
2. grades 7 and 8 from schools containing only grades 7 and 8, or grades 6-8; and grades 7 and 8 from schools containing K-8 and grades 1-8.
3. Three levels of size: small, medium, and large. The size specifications for the group consisting of grades 7 and 8 from schools containing grades 7 and 8, or 6-8, were established on a relative basis for the public-separate strata.

Each category of size was defined such that it contained approximately one-third of the total number of students in that strata. In the case of the public schools, small was defined as ($\leq$ 400), medium as (401-537), and large as ($\geq$ 537). The small public school stratum contained 69 schools; and the large public school stratum contained 49 schools (the total number of public schools of this type was 226). In the case of the separate schools, the total number of schools (26) was so small that stratification according to size resulted in samples so small (small = 2, medium = 1, large = 1) that their use for purposes of generalization is extremely limited. In fact, for this particular intermediate group, a comparison of public and separate schools is not very meaningful. Information regarding these very small samples became known

only after the strata had been specified, and the schools had been enumerated, and it was not thought to be worthwhile to recast the definition of this group and repeat the sampling process. Again, it is acknowledged that no important and meaningful generalizations and comparisons of separate school evaluations are possible from such small sample and strata sizes.

The size specifications for the 7-8 group from schools containing K-8 and grades 1-8 are: small ($\leq$ 249), medium (250-399), and large ($\geq$ 400). They are also the same for both the public and separate school strata. The size categories defined by these specifications each contain approximately one-third of the total number of students for either the public or the separate stratum. This implies that the separate-public distinction may be ignored and comparisons on the basis of size only may be meaningfully carried out on the combined group.

Of the 1,030 public schools containing K-8, or grades 1-8, there were 438 small schools, 346 medium schools, and 246 large schools. Of the 612 separate schools containing K-8, or 1-8, 344 were small, 186 medium, and 82 large.

The qota established for the Intermediate sample was 165 schools. These 165 were chosen proportionately from each of the strata, and each school was chosen from within a given stratum proportionate to its enrolment. The strata and associated sample sizes are summarized in Table 6.

TABLE 6

Distribution of Sampled Schools

Quota = 165 Schools

Public (109)*						Separate (56)					
7 & 8 from 7-8, 6-8 (21)			7 & 8 from K-8, 1-8 (88)			7 & 8 from 7-8, 6-8 (4)			7 & 8 from K-8, 1-8 (52)		
S	M	L	S	M	L	S	M	L	S	M	L
(10)	(6)	(5)	(37)	(30)	(21)	(2)	(1)	(1)	(29)	(16)	(7)

* The figures in the brackets represent the number of schools selected from each indicated stratum.

Content of the Questionnaire

The questionnaire focussed on four main topics of interest:

1. ongoing assessment procedures;
2. use of published tests;
3. communication about achievement;
4. training for assessment;

The first topic, ongoing assessment procedures, includes procedures used throughout the year, either diagnostically for instructional purposes, or for determining rates of progress and achievement. Such procedures were considered to be supplemental to final examinations or to be alternatives to the final examination.

Questions were asked about assessments made at the beginning of the year and at the beginning of a unit of work, about daily and weekly assessment, and about end-of-unit and end-of-term (or end-of-semester) assessment. A number of open-ended questions were required to allow teachers opportunities to explain their various assessment methods.

Three parts of the questionnaire focussed on the ongoing assessment procedures--Part IV: End-of-Term Assessment; Part V: End-of-Unit Assessment; and Part VI: General Assessment Procedures.

Topic 2, the use of published tests, includes questions asking for the names of published tests which have been or will be used in the school, and also for perceptions and views about the use of these published tests.

Topic 3, communicating about achievement, includes questions on reporting to parents, reporting from teacher to teacher within a school, and reporting from one school to another. The questions were designed to provide data on how a teacher maintains records in order to communicate effectively, and also on what access a teacher has to record in order to acquire information. An important subsection deals with the interview as a communication technique. Three parts of the questionnaire focus on communication about achievement--Part I: Reporting Student Progress to Parents; Part II: Use of Parent-Teacher Interviews; and Part III: Other Reporting Techniques and Methods.

Topic 4, training for assessment, focusses on the training and help available to teachers in learning about assessment techniques. It includes questions about test-building skills, interviewing skills, and the availability of courses in assessment. The questions for this

section occur throughout the questionnaire, but results are brought together in this report.

Questionnaire Returns

Tables 7 and 8 show questionnaire returns.

TABLE 7

Returns for the Principals' Questionnaire

Public Schools			No. Requested	No. Returned	% Returned
Intermediate					
7 & 8 from 6-8, 7-8	i)	small	10	9	
	ii)	medium	6	4	
	iii)	large	5	6	
		Sub-total	21	19	91
7 & 8 from K-8, 1-8	i)	small	37	32	
	ii)	medium	30	22	
	iii)	large	21	20	
		Sub-total	88	74	84
Separate Schools					
7 & 8 from 6-8, 7-8	i)	small	2	2	
	ii)	medium	1	1	
	iii)	large	1	1	
		Sub-total	4	4	100
7 & 8 from K-8, 1-8	i)	small	29	22	
	ii)	medium	16	11	
	iii)	large	7	4	
		Sub-total	52	37	71
		TOTAL	165	134	81

TABLE 8

Returns for the Teachers' Questionnaire

Public Schools			No. Requested	No. Returned	% Returned
Intermediate					
7 & 8 from 6-8, 7-8	i)	small	20	17	
	ii)	medium	12	6	
	iii)	large	10	9	
		Sub-total	42	32	76
7 & 8 from K-8, 1-8	i)	small	74	54	
	ii)	medium	60	35	
	iii)	large	42	36	
		Sub-total	176	125	71
Separate Schools					
Intermediate					
7 & 8 from 6-8, 7-8	i)	small	4	4	
	ii)	medium	2	2	
	iii)	large	2	2	
		Sub-total	8	8	100
7 & 8 from K-8, 1-8	i)	small	58	33	
	ii)	medium	32	20	
	iii)	large	14	7	
		Sub-total	104	60	58
		TOTAL	330	225	68

As shown, 134 of 165, or 81%, of the principals' questionnaires were returned. Two hundred and twenty-five of 330, or 68%, of the teachers' questionnaires were returned. The distribution of teachers who contributed viable data from the various subject areas is shown in Table 9.

TABLE 9

Description of Sample Components

Subject	Number of Teachers	% Responents
English	31	14
Mathematics	31	14
Science	29	13
Languages	29	13
History	29	13
Arts	27	12
Home Ec./Shop	15	7
Phys. Ed.	27	12

Results: Ongoing Assessment Procedures

OVERVIEW

A main focus of the study was the analysis of various types of assessment procedures of educational progress in use at grade levels 7 and 8. Many possible methods were presented in the questionnaires, and teachers and principals were asked to not only indicate which procedures were in current use, but also to indicate the relative weight given to these methods of assessment. A number of interview items dealt with the concern of methods of evaluation. Results are presented for items from both the principals' and teachers' questionnaires. In the case of the teachers' questionnaire items, results are broken down into the individual subject areas of English, Mathematics, Science, Languages, History, Art, Music and Theatre Arts, Home Economics and Shop, and Physical Education. The item number and the question appear in the same form as in the questionnaire itself.

INITIAL ASSESSMENT

A teacher can apply various methods to assess educational progress upon being exposed to a new group of students. A few questions of both the principal and teacher questionnaires address this issue.

ITEM RESPONSES

Item 28 for principals and Item 24 for teachers investigated beginning of year assessment practices.

Item 28 for Principals

DO YOU HAVE ANY FORMAL PROCEDURES FOR CONDUCTING STUDENT ACHIEVEMENT AT THE BEGINNING OF THE SCHOOL YEAR?

TABLE 10

Formal Procedures for Conducting Initial Assessment: Principals' Responses

Yes	104	42%
No	168	58%

A minority of principals indicate the presence of formal initial assessment procedures.

Item 24 for Teachers

WHAT PROCEDURES ARE USED FOR ASSESSING STUDENT ACHIEVEMENT AT THE BEGINNING OF THE SCHOOL YEAR?

TABLE 11

Initial Assessment Procedures Used by Teachers According to Subject Area

	NONE		OBSERVATION		TEACHER TEST		STANDARDIZED TEST		OTHER	
	N	%	N	%	N	%	N	%	N	%
English	2	6	28	90	18	58	17	55	4	13
Mathematics	2	6	23	74	23	74	10	32	5	16
Science	7	24	18	62	12	41	6	21	2	7
Languages	2	7	23	79	20	69	8	28	3	10
History	2	7	24	83	13	45	7	24	0	0
Arts	3	4	20	74	8	30	3	11	2	7
Home Ec./Shop	4	27	9	60	1	7	1	7	2	13
Phys. Ed.	2	7	23	85	10	37	4	15	0	0
Overall		11		77		48		26		8

Table 11 shows descriptive data used to assess student achievement at the beginning of the year. The table indicates that teacher observation is the most widely used method for this purpose, cutting across all subject areas. Also of importance is use of teacher-made tests with almost half using this method. However, use of teacher-made exams is focussed primarily upon the Mathematics, Languages, and English areas. To a lesser degree, teacher-made exams are also used in the History and Science areas, as well as the Arts and Physical Education areas. Relatively little use of exams is seen in the Home Economics/Shop areas.

Standardized tests are used to a rather strong degree in the English area. These types of measures are also used to a significant degree in the other academic areas. Little use of these types of measures is seen in the Arts, Home Economics and Shop, and Physical Education areas. Overall, use of formal procedures such as teacher-made tests and standardized instruments are focussed upon the academic skill areas. One-quarter of both Science and Home Economics or Shop teachers report no initial term assessment. *Other* responses included previous teacher consultation, previous year's marks, performance on a brief unit, and take-home review assignments.

END-OF-UNIT ASSESSMENT

Teachers commonly assess achievement at the end of a specified unit. It would be expected that differing types of teachers would be oriented towards different techniques, and would have different purposes behind such assessment.

Purposes of End-of-Unit Assessment

Item 21 for teachers examines the main purposes of end-of-unit exams. The question was phrased in a forced choice format such that only one choice could be indicated.

Item 21 for Teachers

WHAT IS THE MAIN PURPOSE IN USING AN END-OF-UNIT TEST? (Circle one choice only)

TABLE 12

Purposes for Use of End-of-Unit Tests
(% Respondents - by Subject area)

	None		Skill Mastery		Achievement Survey		Placement in Class		Other	
	N	%	N	%	N	%	N	%	N	%
English	1	4	8	32	14	56	2	8	0	0
Mathematics	0	0	12	60	5	25	1	5	2	10
Science	1	5	11	52	8	38	1	5	0	0
Languages	2	10	12	63	4	21	1	5	0	0
History	0	0	11	42	13	50	1	4	1	4
Arts	11	48	7	30	1	4	4	17	0	0
Home Ec./Shop	7	54	6	46	0	0	0	0	0	0
Phys. Ed.	9	35	12	46	5	19	0	0	0	0
Overall		18		46		29		6		2

Table 12 shows that overall main purposes of end-of-unit exams are to ascertain skill mastery and to survey achievement. Skill mastery is extremely relevant for the Languages, Science, and Mathematics areas. It is also of relative importance for all other areas, with lesser emphasis for English and Arts examinations. The surveying of achievement is of prime importance for the English and History areas, and to lesser degrees for the other academic subjects.

Of some note is the finding that over one-half of Home Economics and Shop teachers report no end-of-unit assessments. Arts teachers also report a tendency not to use these assessments. These same groups of teachers also report some use of exams when given for placement in class groups. Overall end-of-unit assessments are especially prevalent for the academic areas with skill mastery and achievement survey given as the main reasons for such evaluations. *Other* purposes included determination of whether retraining was necessary, and reinforcement and review.

TECHNIQUES USED FOR END-OF-UNIT ASSESSMENTS

Given that end-of-unit assessment is quite prevalent, especially in the academic areas, it is of value to examine which particular techniques are in use, and the importance ascribed to each. One item asked both principals and teachers to indicate the degree of importance ascribed to a number of techniques.

Item 24 for Principals

WHAT TECHNIQUES ARE USED FOR END-OF-UNIT ASSESSMENT?

TABLE 13

Value of Assessment Techniques
for End-of-Unit Assessment:
Principals' Responses

	Essential		Important		Limited Value		Not Used	
	N	%	N	%	N	%	N	%
Formal Tests	68	25	178	66	19	7	4	1
Take-Home Assignments	8	3	119	51	84	36	21	9
Take-Home Tests	3	1	28	13	86	40	96	45
Projects (Individual)	30	12	190	73	38	15	1	0
Projects (Group)	20	8	153	61	74	30	4	2
Observations of Classroom Work	111	42	126	48	27	10	0	0
Student-Teacher Conferences	24	10	108	46	87	37	16	7

Principals consider all techniques to be of high importance, except for take-home assignments and tests. Formal tests, teacher observations, and projects are considered exceptionally important.

Item 19 for Teachers

WHAT TECHNIQUES ARE USED FOR END-OF-UNIT ASSESSMENT?

TABLE 14

Importance of Techniques
Used for End-of-Unit Assessment
(% Respondents)~~

	Essential		Important		Limited Value		Not Used	
	N	%	N	%	N	%	N	%
Formal Tests	42	20	83	41	46	21	32	18
Take-Home Assignments	11	6	65	35	49	27	59	32
Take-Home Tests	0	0	18	11	30	18	120	71
Individual Projects	28	14	100	50	41	21	29	14
Group Projects	12	6	74	39	71	38	32	17
Observations	139	67	60	29	8	4	1	0
Orals	28	15	69	38	49	27	38	20

Table 14 is a summary table showing overall importance of various assessment procedures for end-of-unit evaluation. As shown, observations of students are considered either essential or important by almost all grade 7 and 8 teachers. Sixty-one percent of teachers also consider formal tests to be either essential or important. Individual projects are included in these two categories to a significant degree. Of lesser, though still significant importance, are take-home assignments, group projects, and oral interaction. Take-home tests are of little import.

A break-down of the overall findings into subject areas was undertaken. Following these tables are the results of a scaling procedure which synthesizes and integrates these findings into a somewhat more manageable form.

Breakdown for Importance of Formal Tests

Table 15 presents the breakdown by subject area for the importance ascribed to formal tests for end-of-unit assessment.

TABLE 15

Subject Area Breakdown of Formal Tests in %

	Essential		Important		Limited Value		Not Used	
	N	%	N	%	N	%	N	%
English	8	26	15	48	7	23	1	3
Mathematics	12	41	12	41	4	14	1	3
Science	7	24	15	52	7	24	0	0
Languages	4	14	15	54	7	25	2	7
History	6	21	10	34	12	41	1	3
Arts	2	9	8	36	3	14	9	41
Home Ec./Shop	2	8	1	8	4	33	6	51
Phys. Ed.	2	9	7	30	2	9	12	52

Combining the essential and important categories, it is apparent that there is heavy reliance on formal tests in the academic skill areas, especially in Mathematics. Interestingly, almost half of the history teachers feel that tests are of limited value. The non-academic teachers report a significant degree of non-use of formal tests for end-of-unit assessment.

Breakdown for Importance of Classroom Observation

Table 16 presents the breakdown by subject area for the importance ascribed to classroom observation for end-of-unit assessments.

TABLE 16

Subject Area Breakdown of Observation of Classroom Work by Teacher in %

	Essential		Important		Limited Value		Not Used	
	N	%	N	%	N	%	N	%
English	19	66	9	31	1	3	0	0
Mathematics	20	67	8	27	2	7	0	0
Science	17	63	7	26	3	11	0	0
Languages	18	64	10	36	0	0	0	0
History	19	66	9	31	1	3	0	0
Arts	16	64	8	32	0	0	1	4
Home Ec./Shop	12	86	2	14	0	0	0	0
Phys. Ed.	18	69	7	27	1	4	0	0

Classroom observation is a vital part of end-of-unit assessment across all areas. Observation is especially important for the Home Economics/ Shop area.

Breakdown for Importance of Take-Home Assignments

Table 17 presents the breakdown by subject area for the importance ascribed to take-home assignments for end-of-unit assessments.

TABLE 17

Subject Area Breakdown for Importance of Take-Home Assignments

	Essential		Important		Limited Value		Not Used	
	N	%	N	%	N	%	N	%
English	2	7	14	50	9	32	3	10
Mathematics	5	21	10	42	8	33	1	4
Science	1	4	11	48	5	22	6	26
Languages	1	4	10	36	9	32	8	29
History	0	0	4	19	5	24	12	57
Arts	0	0	3	23	4	31	6	46
Home Ec./Shop	1	4	11	41	8	30	7	26
Phys. Ed.	1	5	2	10	1	5	16	80

Take-home assignments are of high value, especially for the Mathematics area. This method of assessment is also generally considered of importance by the teachers in the other academic areas of English, Science, Languages, and History.

Breakdown for Importance of Take-Home Tests

Table 18 presents the breakdown by subject area for the importance ascribed to take-home tests.

TABLE 18

Subject Area Breakdown for Importance of Take-Home Tests

	Essential		Important		Limited Value		Not Used	
	N	%	N	%	N	%	N	%
English	0	0	6	25	4	17	14	
Mathematics	0	0	3	13	7	30	13	56
Science	0	0	6	26	3	13	14	61
Languages	0	0	0	0	7	26	20	74
History	0	0	1	4	7	30	15	65
Arts	0	0	1	5	0	0	18	95
Home Ec./Shop	0	0	0	0	0	0	10	100
Phys. Ed.	0	0	1	5	2	10	16	84

Take-home tests are perceived to have little value. However, one-quarter of English and Science teachers consider them an important source of information.

Breakdown for Importance of Individual Projects

Table 19 presents the breakdown by subject area for the importance ascribed to individual projects.

TABLE 19

Subject Area Breakdown for Importance of Individual Projects

	Essential		Important		Limited Value		Not Used	
	N	%	N	%	N	%	N	%
English	6	21	19	6	4	14	0	0
Mathematics	1	4	6	25	9	38	8	33
Science	2	7	20	71	3	10	3	11
Languages	3	11	15	54	8	29	2	7
History	5	17	20	69	4	14	0	0
Arts	7	32	6	28	4	18	5	23
Home Ec./Shop	4	29	5	36	4	29	1	7
Phys. Ed.	0	0	9	38	5	21	10	42

Arts and Home Economics or Shop teachers consider individual projects to be of value, with one-third of each considering them essential. A high proportion of English, Science, Languages, and History teachers also consider them important or essential. A minority of Mathematics and Physical Education teachers consider them useful.

TABLE 20

Subject Area Breakdown for Importance of Group Projects

	Essential		Important		Limited Value		Not Used	
	N	%	N	%	N	%	N	%
English	3	11	15	56	9	33	0	0
Mathematics	1	4	3	12	10	42	10	42
Science	2	7	15	54	8	29	3	11
Languages	2	8	6	23	15	58	3	12
History	2	7	17	61	8	29	1	4
Arts	2	10	7	35	7	35	4	20
Home Ec./Shop	0	0	4	33	7	58	1	8
Phys. Ed.	0	0	7	29	7	29	10	42

While no large group of teachers consider group projects essential, English, Science, and History teachers consider them either important or essential. Arts teachers also demonstrate a tendency to ascribe importance to group projects in evaluation.

TABLE 21

Subject Area Breakdown for Importance of Student-Teacher Conferences

	Essential		Important		Limited Value		Not Used	
	N	%	N	%	N	%	N	%
English	4	15	13	50	5	19	1	4
Mathematics	4	17	9	38	10	42	1	4
Science	5	19	6	23	5	19	10	38
Languages	4	14	12	41	6	21	7	24
History	4	16	8	32	9	36	4	16
Arts	5	22	10	44	5	22	3	13
Home Ec./Shop	2	17	7	58	1	8	2	17
Phys. Ed.	0	0	4	21	8	42	7	37

TABLE 22

Reported Use of Other Assessment Methods

	N	%
English	2	6
Mathematics	3	10
Science	0	0
Languages	5	17
History	3	10
Arts	5	18
Home Ec./Shop	1	7
Phys. Ed.	1	4

Student-teacher conferences are considered important or essential by most types of teachers. A majority of History, Science, and Physical Education teachers do not consider them valuable, with the latter group especially so.

Other methods included for English: pupil interest and participation, skills, concepts, and oral work in the classroom. A Languages teacher reported use of self-evaluation. An Arts teacher, a quick test on art terms. An oral review was reportedly used by a History teacher, while Mathematics teachers used mini-tests throughout the unit.

OPTIMAL SCALING

Table 23 presents results of an optimal scaling procedure which allows for summarization of the values ascribed to the various assessment techniques by the types of teachers.

Table 23 allows for assessment of various emphases put upon methods of assessment. Overall, teachers place greatest emphases on observation and, to a slightly lesser extent, formal tests, individual projects, and student-teacher conferences. All teachers rate observation as highest in importance. English teachers also place emphases on formal tests and group projects. Mathematics teachers place emphases on formal tests and take-home assignments and conferences. Projects are not considered of great importance.

Science teachers consider formal tests and projects of importance.

Language teachers value formal tests and projects of importance.

Arts teachers place emphasis upon individual projects, teacher-pupil conferences, and, to a lesser extent, group projects.

Home Economics/Shop teachers place value upon individual projects.

History teachers are concerned with projects to an equal degree as formal tests.

Physical Education teachers rely primarily upon teacher observation.

Formal test emphasis is restricted to the academic areas. Projects are of importance for all teachers except Mathematics and Physical Education teachers.

TABLE 23

Optimal Scale Scores for Techniques Used to Assess End-of-Unit Progress

	Formal Tests	Take-Home Assignments	Take-Home Tests	Individual Projects	Group Projects	Teacher Observation	Student-Teacher Conferences
English	39	32	20	39	36	48	34
Mathematics	42	36	19	25	23	48	35
Science	39	29	19	34	33	47	28
Languages	35	27	14	34	30	48	31
History	36	28	16	39	35	48	32
Arts	26	19	11	35	40	47	35
Home Ec./Shop	22	22	10	37	29	51	35
Phys. Ed.	24	16	13	24	23	48	23
Overall	32	24	14	31	26	50	29

FINAL GRADE ASSESSMENT AND USE OF FINAL EXAMS

Final grades are usually assigned on the basis of ongoing term work and, in some cases, upon a final examination. This section examines evaluation practices related to assignments of a final grade. Inquiry is first made into the use and nature of final exams. This is followed by study of the components of the final grade.

FINAL EXAMS

Item 18 for Principals

WHAT IS THE SCHOOL POLICY REGARDING THE USE OF FINAL EXAMINATIONS FOR PROMOTION PURPOSES?

TABLE 24

Use of Final Exams for Promotion Purposes

	N	%
No Student Takes Final Examinations	123	43
All Students Take Final Examinations	18	6
A Specified Group Takes Final Examinations	102	36
Other	32	11

Item 19 for Principals

IF A SPECIFIED GROUP TAKES FINAL EXAMS, HOW IS THE GROUP SPECIFIED?

TABLE 25

Selection Criterion for Final Examination

	N	%
Grade Average	6	2
Within Subject Area by Grade Point Average	78	35
Within Each Subject Area by Other than Average	12	6
Teacher Decision	50	24
Student Chooses	32	15
Other	30	14

If final examinations are given for promotion purposes to selected students, these decisions are determined either by subject grade point average or by teacher decision.

Item 17 for Teachers

WHO IN YOUR SCHOOL CONSTRUCTS FINAL EXAMINATIONS IN YOUR SUBJECT?

TABLE 26

Final Examination Construction

	Not Relevant		Teacher		Depart. Comm.		Other Comm.		Board Made		Commer.		Other	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
English	21	68	8	26	1	3	1	3	0	0	0	0	0	0
Mathematics	19	68	9	32	0	0	0	0	0	0	0	0	0	0
Science	18	62	11	38	0	0	0	0	0	0	0	0	0	0
Languages	16	59	10	37	1	4	0	0	0	0	0	0	0	0
History	19	73	6	23	1	4	0	0	0	0	0	0	0	0
Arts	17	68	8	32	0	0	0	0	0	0	0	0	0	0
Home Ec./Shop	10	17	2	15	0	0	0	0	0	0	1	8	0	0
Phys. Ed.	22	88	3	12	0	0	0	0	0	0	0	0	0	0
Overall	142	70	57	27	3	1	1	0	0	0	1	0	0	0

A large majority of teachers across all subject areas report that final examinations are not used in their subject area. When they are used they are constructed by the individual teachers.

Item 18 for Teachers

HOW OFTEN DO YOU USE THE FOLLOWING COMPONENTS ON FINAL EXAMS IN YOUR SUBJECT AREA?

TABLE 27

Components of Final Exams

	Frequently		Sometimes		Rarely		Never	
	N	%	N	%	N	%	N	%
True-False	13	12	28	26	36	33	33	30
Matching	14	14	36	35	25	24	27	26
Multiple Choice	18	17	45	42	21	19	24	22
Short Answer	64	57	23	20	1	0	25	22
Essay	28	27	26	25	18	17	31	30

Overall, short answers are used frequently in final exams, while true-false and matching items are used the least. The other types of items are mostly used sometimes. Table 28 presents breakdown of components of final exams according to subject area.

TABLE 28

Breakdown of Components of Final Exams:
True-False

	Frequently		Sometimes		Rarely		Never	
	N	%	N	%	N	%	N	%
English	2	13	5	33	7	47	1	7
Mathematics	2	13	2	13	2	13	9	60
Science	5	26	4	21	7	37	3	16
Languages	0	0	5	33	8	53	2	13
History	2	12	6	38	5	31	3	18
Arts	0	0	3	18	5	46	6	56
Home Ec./Shop	1	12	2	25	2	25	3	38
Phys. Ed.	1	9	2	18	1	9	7	64

Science teachers report the greatest frequency of use of true-false questions. Mathematics, Home Economics or Shop, Languages, and Physical Education teachers report the least use of these types of questions.

TABLE 29

Breakdown of Components of Final Exams:
Matching Questions

	Frequently		Sometimes		Rarely		Never	
	N	%	N	%	N	%	N	%
English	2	13	5	33	7	47	1	7
Mathematics	0	0	4	29	2	14	8	57
Science	5	26	9	47	2	10	3	16
Languages	4	27	6	40	4	27	1	7
History	1	6	10	62	3	19	2	12
Arts	0	0	1	10	6	60	3	30
Home Ec./Shop	1	14	4	57	0	0	2	29
Phys. Ed.	1	9	2	18	1	9	7	64

Greatest use of matching questions is among Science, Languages, Home Economics, and History teachers. Arts and Mathematics teachers report use of these types of measures.

TABLE 30

Breakdown of Components of Final Exams:
Multiple Choice Questions

	Frequently		Sometimes		Rarely		Never	
	N	%	N	%	N	%	N	%
English	4	27	7	47	3	20	1	7
Mathematics	0	0	4	31	3	23	6	46
Science	7	37	8	42	2	10	2	10
Languages	3	19	9	57	3	19	1	6
History	2	12	9	56	4	25	1	6
Arts	0	0	2	20	5	50	3	30
Home Ec./Shop	2	25	3	37	0	0	3	38
Phys. Ed.	0	0	3	27	1	9	7	64

Multiple choice questions are used to a great extent by English, Science, Languages, and History teachers. Other areas report little use of these types of items.

TABLE 31

Breakdown of Components of Final Exams:
Short Answers

	Frequently		Sometimes		Rarely		Never	
	N	%	N	%	N	%	N	%
English	9	60	5	33	0	0	1	7
Mathematics	3	20	4	27	1	7	7	47
Science	17	81	2	10	0	0	2	10
Languages	11	69	4	25	0	0	1	6
History	10	62	5	31	0	0	1	6
Arts	8	67	1	8	0	0	3	25
Home Ec./Shop	3	43	1	14	0	0	3	43
Phys. Ed.	3	27	1	9	0	0	7	64

All teachers report high use of short answers, except for Physical Education teachers. Forty percent of Home Economics or Shop teachers report no use of short answers type items.

TABLE 32

Breakdown of Components of Final Exams:
Essay Questions

	Frequently		Sometimes		Rarely		Never	
	N	%	N	%	N	%	N	%
English	7	50	5	36	1	7	1	7
Mathematics	1	9	0	0	3	27	7	64
Science	8	42	5	26	3	16	3	16
Languages	5	31	5	31	4	25	2	12
History	4	25	8	50	2	12	2	12
Arts	1	11	1	11	2	22	5	56
Home Ec./Shop	0	0	1	14	3	43	3	43
Phys. Ed.	2	18	1	9	0	0	8	73

English, History, and Science teachers make frequent use of essay type questions. Mathematics and Arts teachers make little use of these types of items. Languages teachers also use essays in final exams rather extensively.

OPTIMAL SCALING

Table 33 presents results of an optimal scaling technique for determining relative emphasis of type of test items as a function of subject area.

TABLE 33

Optimal Scaling for Types of Items Used in Final Examinations

	True-False	Matching	Multiple Choice	Short Answer	Essay
English	21	21	30	42	38
Mathematics	17	14	15	23	12
Science	34	30	33	46	32
Languages	15	28	28	44	29
History	22	24	25	43	30
Arts	12	10	12	40	16
Home Ec./Shop	19	26	27	30	11
Phys. Ed.	16	16	14	22	18
Overall	18	19	21	44	27

These results allow for comparisons between subject areas for use of certain types of measures as well, and allows for outlining of particular types of measures used by subject areas.

Overall, it can be seen that short answer tests are the most widely used measures, and true-false and matching questions are the least used.

English teachers place emphasis on short answer and essay questions.

Mathematics teachers place most emphasis on short answer questions, and least emphasis on essay questions.

Science teachers use short answer questions the most, but rely strongly on all types of measures.

Languages teachers use short answers, but also rely upon matching, multiple choice, and essay questions.

Arts teachers predominantly use short answers.

Home Economics or Shop teachers use short answers, multiple choice, and matching questions.

History teachers rely upon short answers and essay type questions. Other types are used also.

Physical Education teachers indicate moderate use of all types of measures.

COMPONENTS OF FINAL GRADES

A series of questions examined the relative emphasis that principals and teachers give in constructing a final grade. These components might include final exams, term grades, or various types of assignments.

Item 20 for Principals

WHETHER OR NOT A FINAL EXAMINATION IS USED IN YOUR SCHOOL, WHAT PROPORTION OF THE FOLLOWING COMPONENTS MAKE UP THE FINAL GRADE?

TABLE 34

Components of Final Grade:
Principals' Responses

	None		10%		20%		30%		50%	
	N	%	N	%	N	%	N	%	N	%
Final Exam	66	37	10	12	21	12	41	23	38	21
Term Grades	7	3	10	14	31	14	56	26	104	48
Daily Assignments	2	1	33	25	45	25	59	32	39	21
Large-Scale Assignments	2	1	63	38	64	38	28	17	8	5
Note books, Lab books	9	6	160	67	27	18	6	4	4	4

Principals report that term grades are the largest component of the final grade. Daily assignments are also heavily weighted. Note books and lab books are the least weighted.

Item 13 for Teachers

WHETHER OR NOT A FINAL EXAMINATION IS USED IN YOUR SCHOOL, WHAT PROPORTION (APPROXIMATELY) OF THE FOLLOWING COMPONENTS MAKE UP THE FINAL GRADES FOR YOUR DESIGNATED SUBJECT AREA?

TABLE 35

Components of Final Grades:
Teachers' Responses

	None		10%		20%		30%		>50%		All	
	N	%	N	%	N	%	N	%	N	%	N	%
Final Exams	109	62	21	12	25	14	10	6	11	6	0	0
Term Grades	17	9	13	7	35	18	46	24	68	36	11	6
Daily Assignments	11	6	28	16	43	23	38	20	60	32	8	4
Large-Scale Assignments	30	17	50	28	46	26	33	18	18	10	3	2
Note books	41	24	88	52	29	17	9	5	1	0	2	1

As might be expected, teachers, overall, report emphasis is placed upon term grades and daily assignments for reaching a final grade. Large-scale assignments are also given moderate importance. Final examinations and notebooks are given little importance.

The next tables provide breakdowns for final grade components according to each assessment technique.

TABLE 36

Components of Final Grades:
Final Exams

	None		10%		20%		30%		>50%		All	
	N	%	N	%	N	%	N	%	N	%	N	%
English	17	68	1	4	3	12	2	8	2	8	0	0
Mathematics	15	58	3	12	5	19	1	4	2	8	0	0
Science	8	35	3	13	6	26	3	13	3	13	0	0
Languages	13	50	6	23	4	15	2	8	1	4	0	0
History	6	64	3	12	4	16	0	0	2	8	0	0
Arts	17	74	3	13	2	9	1	4	0	0	0	0
Home Ec./Shop	9	90	1	10	0	0	0	0	0	0	0	0
Phys. Ed.	16	64	3	12	4	16	0	0	2	8	0	0

Little importance is ascribed to final examinations as components of final grades. Most teachers, when final examinations are used, ascribe 10-20% of final grades.

TABLE 37

Components of Final Grades:
Term Grades

	None		10%		20%		30%		>50%		All	
	N	%	N	%	N	%	N	%	N	%	N	%
English	1	4	2	7	8	29	7	25	6	21	0	14
Mathematics	0	0	3	12	4	15	5	19	14	54	0	0
Science	1	4	0	0	6	23	2	8	5	21	0	0
Languages	3	11	2	7	5	18	7	25	11	39	0	0
History	1	4	1	4	6	23	8	31	10	38	0	0
Arts	6	27	2	9	4	18	4	18	4	18	2	9
Home Ec./Shop	2	18	1	9	0	0	3	27	4	36	1	9
Phys. Ed.	3	13	2	9	2	9	4	17	8	35	4	17

Term grades are important components of final grades across all subject areas. These components are especially important for Mathematics, Languages, and History teachers. Home Economics or Shop teachers also value term grades as a component of an assigned final grade.

TABLE 38

Components of Final Grades:
Daily Assignments

	None		10%		20%		30%		>50%		All	
	N	%	N	%	N	%	N	%	N	%	N	%
English	1	4	3	11	6	21	8	28	9	32	1	4
Mathematics	0	0	6	23	9	35	3	12	8	31	0	0
Science	3	12	6	25	8	33	2	8	5	21	0	0
Languages	0	0	5	19	7	27	5	19	9	35	0	0
History	0	0	3	11	7	26	11	41	6	22	0	0
Arts	2	8	1	4	2	8	3	12	11	44	6	24
Home Ec./Shop	0	0	2	20	1	10	3	30	4	40	0	0
Phys. Ed.	5	23	2	9	3	14	3	14	8	36	1	4

Daily assignments are also an important component of final grades. These assignments are especially important for Languages, Arts, Home Economics and Shop, and Physical Education teachers. Other academic skill areas teachers place less emphasis on daily assignment, usually assigning 10-20% of the final grade according to assignments.

TABLE 39

Components of Final Grades:
Large-Scale Assignments

	None		10%		20%		30%		>50%		All	
	N	%	N	%	N	%	N	%	N	%	N	%
English	1	4	4	17	6	25	11	46	2	8	0	0
Mathematics	7	27	12	46	4	15	2	8	1	4	0	0
Science	2	8	4	15	14	54	5	19	1	4	0	0
Languages	4	17	10	44	6	26	1	4	2	9	0	0
History	0	0	6	21	10	36	11	39	1	4	0	0
Arts	6	26	8	35	4	17	0	0	3	13	2	9
Home Ec./Shop	0	0	0	0	2	17	2	17	7	58	1	8
Phys. Ed.	10	56	6	33	0	0	1	6	1	6	0	0

Large-scale assignments are especially important for Home Economics and Shop teachers. Most teachers assign 10-30% of the final grade upon the basis of large-scale assignments. Mathematics and Physical Education teachers place the least emphasis upon large-scale assignments.

TABLE 40

Components of Final Grades:
Note Books

	None		10%		20%		30%		>50%		All	
	N	%	N	%	N	%	N	%	N	%	N	%
English	1	4	10	45	7	32	4	18	0	0	0	0
Mathematics	5	18	18	64	4	14	1	4	0	0	0	0
Science	2	8	17	66	7	27	0	0	0	0	0	0
Languages	6	27	13	59	2	9	0	0	1	4	0	0
History	2	8	19	73	3	12	2	8	0	0	0	0
Arts	9	48	3	16	3	16	2	10	0	0	2	10
Home Ec./Shop	5	56	4	44	0	0	0	0	0	0	0	0
Phys. Ed.	11	61	4	22	3	17	0	0	0	0	0	0

Notebooks usually do not play a large role in the assigning of final grades. English and Science teachers, as well as Arts teachers, place the greatest emphasis on notebooks but never really greater than of a value of 20%.

OPTIMAL SCALING

Table 41 presents results of an optimal scaling for components of final grades. This procedure allows for the comparison of importance for components across different subject areas.

TABLE 41

Optimal Scaling for Components of Final Grades

	Final	Term Grades	Daily Assign.	Large Scale Assign.	Other Components
English	19	42	41	38	30
Mathematics	20	44	38	24	22
Science	28	44	33	34	26
Languages	21	40	40	27	21
History	18	43	42	38	24
Arts	15	33	44	27	23
Home Ec./Shop	10	39	42	47	15
Phys. Ed.	15	40	36	18	16
Overall	18	43	41	30	21

Overall, term grades and daily assignments are given the greatest importance for the assigning of final grades. Large scale assignments are also important.

English teachers ascribe particular importance to term grades, daily assignments, and, to a slightly lesser degree, large scale assignments.

Mathematics teachers place particular emphasis upon term grades and, to a lesser degree, daily assignments. No other components of the final grade are rated particularly high.

Science teachers place high emphasis upon term grades as well. Lesser emphasis is placed upon the other components of large scale assignments, daily assignments, and final examinations.

Language teachers place equally high importance upon term grades and daily assignments. Lesser emphasis is placed upon large scale assignments.

History teachers place high value to term grades, daily assignments, and large scale assignments.

Arts teachers place very high emphasis upon daily assignments and lesser, though important, value to term grades.

Home Economics and Shop teachers place very high value upon large scale assignments, term grades, and daily assignments.

Physical Education teachers' final grades consist mainly of scores obtained from term grades and daily assignments.

WEIGHTING OF FORMAL AND INFORMAL ASSESSMENT

Item 22 for Teachers

SELECT THE ONE ALTERNATIVE BELOW THAT BEST INDICATES THE WEIGHTING OF FORMAL AND INFORMAL ASSESSMENT THAT YOU CONSIDER IDEAL FOR YOUR SUBJECT AREA.

TABLE 42

Weighting of Formal and Informal Assessment

	Formal Only		Formal > Informal		Formal = Informal		Formal < Informal		No Formal	
	N	%	N	%	N	%	N	%	N	%
English	0	0	5	16	16	52	10	32	0	0
Mathematics	1	3	12	40	11	37	5	17	1	3
Science	1	3	6	21	12	41	10	34	0	0
Languages	0	0	5	17	9	31	13	45	2	7
History	0	0	3	11	10	36	15	54	0	0
Arts	1	4	1	4	8	35	5	22	8	35
Home Ec./Shop	0	0	1	7	3	21	7	50	3	21
Phys. Ed.	0	0	3	11	6	22	10	37	8	30
Overall	3	1	36	17	75	35	75	35	22	10

Most teachers feel that the ideal combination weights for assessment is either formal equals informal or formal less important than informal. One in five teachers place more importance upon formal than informal methods.

English teachers tend to feel that the ideal combination is equal weighting of formal and informal techniques.

Mathematics teachers either feel that formal assessment is more valuable than informal assessment or feel that equal weighting is best.

Science teachers tend to feel that equal weighting of formal and informal assessments are best.

Languages teachers tend to be oriented towards greater emphasis upon informal assessment techniques.

History teachers also tend to favour informal assessment techniques.

Arts teachers tend to favour informal assessment techniques. A significant minority report no use of formal techniques.

Home Economics and Shop teachers are heavily oriented towards use of informal assessments.

Physical Education teachers follow the same pattern as the non-academic skill teachers.

It appears that teachers in the academic skill areas are oriented towards either equal weighting of formal and informal or leaning towards informal assessments. Non-academic skill teachers are heavily oriented towards informal assessments.

STUDENT SELF-EVALUATION

A few questions inquired into the prevalence of student self-evaluation.

Item 29 for Principals

IS STUDENT SELF-EVALUATION A METHOD OF ASSESSMENT USED DURING THE SCHOOL YEAR?

TABLE 43

Student Self-Evaluation:
Principals' Responses

	N	%
No, Not At All	86	32
Yes, Informally	167	62
Yes, Formally	15	6

Almost two-thirds of principals indicate that student self-evaluation is done informally.

Item 25 for Teachers

IS STUDENT SELF-EVALUATION A METHOD OF ASSESSMENT USED DURING THE SCHOOL YEAR IN YOUR SUBJECT AREA?

TABLE 44

Student Self-Assessment:
Teachers' Responses
(a) Overall

	N	%
No, Not At All	59	28
Yes, Informally	134	64
Yes, Formally	15	7

(b) Breakdown

	No, Not At All		Yes, Informally		Yes, Formally	
	N	%	N	%	N	%
English	7	23	22	71	2	6
Mathematics	8	28	19	66	2	7
Science	13	50	10	38	3	12
Languages	7	24	20	69	2	7
History	8	28	20	69	1	3
Arts	7	28	15	60	3	12
Home Ec./Shop	0	0	10	83	2	16
Physical Education	9	33	18	67	0	0

Most teachers report that student self-evaluation occurs on an informal basis. This tendency is consistent across all teaching areas, especially so for Home Economics and Shop teachers. This tendency for self-evaluation is weaker for Science teachers, one-half of whom report that no student self-evaluation occurs. A significant proportion of Home Economics and Shop teachers report the presence of formal self-evaluation.

DIFFICULTIES IN ASSESSMENT

An important issue is the difficulties that teachers encounter in evaluation in their own subject areas.

Item 16 for Teachers

WHAT MAKES ASSESSMENT IN YOUR SUBJECT AREA DIFFICULT?

Overall, main problems concern the wide range of student ability and achievement. Also mentioned by a significant minority are subjective nature of area, lack of prerequisites, and non-cognitive nature of area.

English teachers are particularly concerned about the subjective nature of their area, broad range of ability, and various achievement levels.

Mathematics teachers report difficulties associated with broad range of ability and various achievement levels.

Science teachers are quite concerned with the broad range of ability and various achievement levels.

TABLE 45

Reported Difficulties in Assessment by Teachers
in Various Subject Areas

	Nothing		Subjective Nature of Area		Broad Range of Ability		Lack of Prerequisites		Various Achievement Levels		Non-Cognitive		Other	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
English	0	0	17	55	13	41	9	29	17	55	11	35	4	13
Mathematics	8	26	1	3	13	42	6	19	19	61	3	10	3	10
Science	2	7	1	3	19	66	6	21	13	45	4	14	4	14
Languages	6	21	4	14	13	45	13	45	13	45	4	14	3	10
History	2	7	10	34	20	69	7	24	10	35	7	24	2	7
Arts	2	7	12	44	22	82	6	22	19	70	10	37	5	19
Home Ec./Shop	2	13	3	20	8	53	4	27	12	80	3	20	1	7
Phys. Ed.	2	7	11	41	17	63	4	15	17	63	6	22	1	4
Overall	24	11	59	27	125	57	55	25	120	55	52	23	23	10

Language teachers indicate problems due to broad range of ability, lack of prerequisites, and various achievement levels.

History teachers are quite concerned with the broad range of ability and, to lesser extents, various achievement levels and the subjective nature of the area.

Arts teachers are overwhelmingly concerned with the broad range of student ability, various achievement levels, and, to a lesser extent, the subjective nature of their area and the non-cognitive components.

Home Economics and Shop teachers report difficulties with various achievement levels, and the broad range of ability.

Physical Education teachers are concerned with various achievement levels, broad range of ability, and the subjective nature of their area.

DISCUSSION FOR ONGOING ASSESSMENT PROCEDURES

The first section reviews the findings related to ongoing assessment procedures as reported by principals and teachers at these Intermediate levels. These findings will be contrasted to results for the Elementary and Secondary samples reported in the Wahlstrom and Danley (1977) paper. It should be noted that many Intermediate level principals will have also provided data for the Elementary sample, thus qualifying any comparison. This qualification does not apply to teacher data, as Intermediate teacher data is restricted to respondents teaching grades 7 or 8.

Initial Assessment

Only one in three Intermediate principals reported the presence of formal procedures for beginning-of-term assessment. Interestingly, these findings of little formal assessment are more similar to findings of Secondary level principals. Teachers overwhelmingly report that their observations are used for such initial assessments, while half report use of their own tests. A smaller proportion rely upon standardized tests. In comparison to the Wahlstrom-Danley findings, the results for teacher observation and published tests show greater similarity to the Elementary sample of teachers, indicating that initial assessment practices of the Intermediate teachers resemble those reported by Elementary school teachers. It is important to note also that only one in ten Intermediate teachers reported no formal assessment, which is rather similar to the 6% of

Elementary level teachers who so responded. Over one-quarter of the Secondary teachers do not report initial assessment.

End-of-Unit Assessments

Skill mastery is the primary purpose of end-of-unit assessment with achievement surveying also mentioned by a goodly proportion of teachers. Almost one-fifth of these teachers did not use end-of-unit tests. These findings of rationale for use of end-of-unit exams fall midway between findings for the Elementary and Secondary samples, and, as such, are not distinctive. The number reporting no end-of-unit assessment is similar to findings reported by the Elementary sample. Yet one must note that this proportion, for the most part, consists of a high percentage of Arts, Home Economics or Shop, and Physical Education teachers reporting no such procedure. Thus, as concerns end-of-unit assessment, the Intermediate samples show no unique characteristics.

Techniques for End-of-Unit Assessments

Principals consider all techniques to be of importance, except for take-home assignments and tests. Teachers consider classroom observations of exceptional importance, and all other techniques to be valuable, except for take-home tests. The emphasis in this sample upon classroom observations and relative lessened importance of formal tests is similar to the views of the Elementary sample of teachers reported in the Wahlstrom-Danley paper. Yet the relative emphasis placed upon take-home assignments and individual projects by the Intermediate teachers is similar to the Secondary teachers' responses. Thus, it would appear that the Intermediate level teachers assess students at these levels with a combination of emphasis from both the Elementary and Secondary type realms. The reliance upon teacher observation reflects an Elementary type tendency, while the beginning use of take-home assignments and individual projects reflects the beginning responsibility of students to complete assigned tasks.

FINAL GRADE ASSESSMENT AND USE OF FINAL EXAMS

A small minority of principals reported that all students take final exams. About one-third reported that a specified group did so. Whether such a group does take a final examination usually depends upon subject, area, grade point average, or, to a lesser extent, a teacher or student decision. When examinations are given by this minority of teachers, they tend to be teacher made.

These findings indicate that a small minority of Intermediate level pupils take final exams. These figures, especially concerning specified groups taking such exams, are quite similar to the Elementary sample reports. Similarly, the seven in ten teachers who report no use of final exams are strikingly similar to figures reported by Elementary teachers and quite dissimilar to Secondary level teachers.

COMPONENTS OF FINAL EXAMINATIONS

When final examinations are administered, primary components are short answers. Essays are used more than multiple choice, matching, and true-false, with this order one of decreasing frequency. These scores are not distinctive in relation to the Elementary and Secondary samples.

COMPONENTS OF FINAL GRADES

Principals reported that term grades were the largest components of final grades assigned to students. Daily assignments were also weighted heavily. Teachers concur in these opinions but also weigh large scale assignments moderately. Both principals and teachers play down the importance of final examinations and notebooks. The lack of emphasis upon final examinations is similar to the practices seen among the Elementary sample in the Wahlstrom-Danley (1977) paper and indicates similarity with Elementary rather than Secondary practices.

WEIGHTING OF FORMAL VS. INFORMAL ASSESSMENTS

Most teachers feel the ideal combination of weighting is either formal equal with informal or informal more important than formal. There are differences among subject areas with academic skill area teachers placing relatively higher emphasis on formal assessments.

These findings are similar to the Elementary sample's findings, which also indicate greater relative emphasis upon informal rather than formal assessment procedures.

STUDENT SELF-EVALUATION

Both a majority of principals and teachers report that informal student self-evaluation occurs. These findings are also more like the Elementary sample of teachers' responses.

REPORTED DIFFICULTIES IN ASSESSMENT

Main problems reported by teachers for providing assessments are the broad range of ability and achievement in their classes. Also prominently mentioned are the subjective nature of their area, lack of prerequisites, and the non-cognitive character of the subject area. This data was not reported for the other samples by Wahlstrom and Danley; thus no comparisons to other practices are possible.

PROFILES OF SUBJECT AREA TEACHERS

This section provides profiles of ongoing assessment procedures of Intermediate teachers in the various subject areas examined in this study.

English teachers seem to be using the greatest amount of initial assessment procedures of all subject area teachers. Almost all use their own observation, and over half construct their own tests. A quite distinctive characteristic is the majority use of standardized tests for initial assessment.

English teachers' main use of end-of-unit tests is to survey achievement and, to a lesser extent, to evaluate skill mastery. The manner in which assessment is made at the end of the unit focusses upon teacher observation, formal tests, and individual projects. Take-home tests are rarely used.

Only a minority of English teachers use final examinations, but when they do, they are constructed by the teachers themselves. These examinations focus heavily on use of short answer or essay type questions.

These teachers ascribe particular importance for assigning final grades to term grades, daily assignments, and large scale assignments. Informal and formal assessments are seen as equally valuable and much is made of informal student self-evaluation. Finally, main problems associated

with assessment in this area are the subjective nature of the area and the broad range of student ability and achievement.

Mathematics teachers, in most cases, use both their own observation and tests to evaluate initial achievement levels. The use of tests for these purposes is greatest in this subject area. The main purpose of end-of-unit tests is to ascertain skill mastery and, to a much lesser degree, for achievement survey. These teachers rely upon their own observations and formal tests for information for end-of-unit assessment. Unlike English teachers, individual and group projects are seen of lesser value. Similar to English teachers, only a minority of Mathematics teachers use final examinations, but when they do, they are teacher constructed. These final examinations usually consist of short answer type questions. Standardized tests provide information for these purposes for a significant minority of teachers.

Mathematics teachers place great emphasis upon term grades and daily assignments for assigning final grades. They place greater emphasis upon formal assessment, yet report that informal student self-evaluation does occur. Main problems in assessment in the area concern the broad range of ability and achievement levels.

Science teachers conduct initial student assessments to a lesser extent than English and Mathematics teachers. When such assessments are done, these teachers rely upon their own observation, teacher-made tests, and, in some cases, standardized measures. The figures for use of these procedures are consistently less than that for the other subject areas of English and Mathematics.

Main purposes of end-of-unit assessments are for evaluation of skill mastery and, for a lesser extent, achievement survey. Methods used for these end-of-unit assessments are primarily teacher observations and formal tests. Individual and group projects are also considered of relatively high importance. The minority of Science teachers who use final exams make their own tests. These Science teachers report use of a wide range of item types, with an emphasis on short answer, but also reliance upon true-false, matching, multiple choice, and essays.

Science teachers, for final grade purposes, place emphasis upon term grades, large scale assignments, and daily assignments. Equal weighting of formal and informal assessments is seen as optimal. Most Science teachers report no student self-evaluation occurs. Finally, main problems in assessment in the area concern the broad range of ability and and achievement among students.

Language teachers rely heavily upon their own observations and teacher-made tests for initial assessment of student achievement. Interestingly, almost three in ten report use of standardized tests for this purpose.

Main purposes of end-of-unit mastery are reported as ascertaining skill mastery and, to a far lesser extent, survey of achievement. Methods by which these assessments are made are usually teacher observation, formal tests, and individual projects. Take-home tests are sparsely used.

Final examinations, reportedly used by only a minority of Language teachers, are constructed by the teachers themselves. When such exams are used, reliance is usually upon short answer type questions, though essays, multiple choice, and matching questions are also used.

Language teachers place value for final grade purposes upon term grades and daily assignments. These teachers lean towards greater emphasis upon informal than formal assessments and report a great degree of student self-evaluation. Main difficulties in assessment are the broad range of achievement and ability levels and the lack of prerequisites.

History teachers rely heavily upon their own observations for conducting initial assessment, though almost half report use of their own tests. A significant minority report use of standardized tests.

Main purposes of end-of-unit tests are split almost evenly between surveying of achievement and evaluating skill mastery. History teachers rely upon a wide range of methods for these assessments, including teacher observation, individual projects, formal tests, and group projects.

Only one-quarter of the history teachers report use of final examinations, which they construct themselves. Reliance is heavy upon short answer type questions for these examinations, though essay type questions are widely used.

History teachers weigh heavily term grades, daily assignments, and large scale assignments for reaching final grades. They also tend to weight informal over formal assessments and frequently report informal student self-evaluation. Main problems in assessment concern the broad range of ability.

Arts teachers make generally less use of initial assessments of students than teachers in the academic skill areas. Such assessments usually involve teacher observation, though a significant minority use their own tests.

Half of the Arts teachers report no end-of-unit assessments. When they are done, these assessments are used to ascertain skill mastery. A significant minority use these assessments for placement in classes. Such assessments are usually accomplished by teacher observations and, as might be expected, ratings of individual and group projects. Formal tests are downplayed, while student-teacher conferences, while not rated higher than other area teachers, seem relatively important.

Final exams are used by a minority of Arts teachers and are made by themselves. Reliance upon short answer type questions is characteristic.

Arts teachers place very high emphasis for final grades upon daily assignments. They are heavily oriented towards informal assessment procedures, and reported much informal student self-evaluation. Main difficulties in assessment are the broad range of student ability and achievement.

Home Economics and *Shop* teachers rely solely upon teacher observations for initial assessment. These initial assessments are done by slightly over half of the teachers, with a significant minority reporting no use of initial evaluation procedures.

Over half of these teachers report no end-of-unit tests. The other half report the sole purpose of exams is the evaluating of skill mastery. Assessment focusses heavily upon teacher observations. Individual projects and student-teacher conferences are of less importance.

Final examinations are teacher constructed and used by a minority of teachers. They usually consist of short answers, multiple choice, and matching type questions.

Home Economics and Shop teachers place high value upon large scale assignments and term grades for assigning a final grade. They are oriented towards informal assessments and report much informal student self-evaluation. Main assessment difficulties relate to the broad range of ability and achievement levels.

Physical Education teachers rely heavily upon their own observations for initial assessments; however, one-third report use of their own tests.

One-third of Physical Education teachers report no use of end-of-unit assessments. Those that do, see the main purpose of these procedures as the measurement of skill mastery. A minority are concerned with achievement survey. End-of-unit assessments emphasize observation.

A small minority use final exams, with these self-constructed measures consisting of a variety of item types, though all of these are used infrequently.

Final grades for Physical Education teachers are obtained mainly from term grades and daily assignments. They are oriented towards informal assessments and report much informal student self-evaluation. Main difficulties in assessment are the various ability and achievement levels among students.

Results: Use of Published Tests

OVERVIEW

Published tests are usually well constructed measurement instruments designed to provide objective information on pupils' abilities and educational achievement. Scholastic aptitude tests are designed to provide a measure of individual's ability to profit from educational experience. They serve to predict subsequent educational progress.

In contrast, achievement tests serve as a measure of educational progress to date. These instruments usually contain items that are directly related to what is perceived to be the information that schools should be imparting to students. Achievement tests are either comprehensive batteries containing a diverse number of subtests or focus on one specific skill area such as Arithmetic or Reading.

The first section of this chapter provides information on type and frequency of use of these measures. The second section examines the various perceived uses and value of these tests, as well as other information concerning views of these instruments. The final section summarizes these findings in relation to data in the Wahlstrom-Danley (1977) paper and presents profiles of subject area teachers' practices and views.

TYPE OF TEST AND FREQUENCY OF USE

The following information presents reported use of various published tests at the grade 7 and 8 levels. The information is obtained from items of the Principals' Questionnaire.

FREQUENCY OF USE

Item 40 for Principals

WHICH OF THE FOLLOWING TYPES OF PUBLISHED TESTS ARE USED AS PART OF AN ANNUAL OR OTHER TESTING PROGRAM IN THE SCHOOL?

TABLE 46

Regular Use of Published Tests

	N	%
None	15	9
Scholastic Aptitude	19	12
Achievement	53	34
Diagnostic	16	10
Other	4	2

Over one-third of all principals report ongoing annual use of achievement tests at these levels. Over 10% also report use of scholastic aptitude tests, while a similar number report regular use of diagnostic measures. Other tests mentioned include the Kuder Vocational Interest Inventories and the Sherman Reading Aptitude Test. Only a miniscule number of principals report systematic use of these types of other measures, however.

Item 41 for Principals

WHICH OF THE FOLLOWING TYPES OF PUBLISHED TESTS ARE USED OCCASIONALLY, NOT AS PART OF A REGULAR TESTING PROGRAM?

TABLE 47

Occasional Use of Published Tests

	N	%
Scholastic Aptitude	21	13
Achievement	30	19
Diagnostic	49	31
Other	2	1

The most widely used tests on an occasional basis are diagnostic tests, with almost 1/3 of principals reporting their use. Significant occasional use is also made of achievement and scholastic aptitude measures. The vocational interest type measures account for the other responses.

SPECIFIC TESTS USED

The specific titles of tests in use were also obtained from principals..

Items 33-39 for Principals

WHICH PUBLISHED TESTS HAVE BEEN OR WILL BE USED IN YOUR SCHOOL THIS YEAR? (Circle the number and level of the test(s) used)

Scholastic Aptitude Tests

Table 48 presents the number and percentage of principals reporting use of specific aptitude or ability batteries.

TABLE 48

Scholastic Aptitude Tests Administered:
Principals' Responses

Test	N	%
Beta - Grades 4-9	6	4
Otis-Lennon Mental Ability Test, 1967		
Intermediate - Grades 7-9	2	1
Dominion Group Tests of Learning Capacity		
Intermediate - Grades 7-9	35	22
Canadian Lorge-Thorndike Intelligence Tests Multi-Level Battery		
E 7	22	14
F 8-9	6	4
Henmon-Nelson Tests of Mental Ability		
Level 2, Grades 6-9	10	6
School and College Ability Tests (SCAT), Series II		
Level 3, Grades 7-9	1	1

As shown, a significant portion of principals report use of aptitude measures. Over one in five report use of the Dominion Group Test while

almost 15% report use of the Canadian Lorge-Thorndike. The Henmon-Nelson Ability Tests are also used by a number of schools. Little use of the Beta, OTIS-Lennon, and SCAT series is seen.

Achievement Batteries

Table 49 presents the number and percentage of principals reporting use of achievement batteries. Since these measures consist of a number of sub-tests which may be administered separately, inquiry into use of the entire battery or partial battery was made.

TABLE 49

Achievement Batteries Administered:
Principals' Responses

Achievement Battery	Entire Battery		Partial Battery					
			Reading		Math		Other Parts	
	N	%	N	%	N	%	N	%
Canadian Test of Basic Skills								
Grades 6-7	32	20	26	17	23	15	9	6
Grades 7-8	49	31	33	21	26	17	6	4
Metropolitan Achievement Tests								
Intermediate, Grades 7-9.5	6	4	11	7	11	7	3	2
Sequential Tests of Educational Progress (STEP)								
Form 3, Grades 7-9	0	0	1	1	1	1	0	0
Stanford Achievement Tests								
Advanced Battery, Grades 7-9.9	5	3	6	4	4	2	0	0

Wide use of the Canadian Tests of Basic Skills is reported by principals. At the grade 7 and 8 levels use is especially prevalent, with over 30% of principals reporting use of the entire battery, with another significant portion reporting use of partial batteries. Totalling reporting users of the entire battery and the average of partial users indicates that over 50% of principals are apparently using all or part of the CTBS.

Approximately 10% of principals report use of all or part of the Metropolitan Achievement Test. The Stanford Achievement Test and the Sequential Test of Educational Achievement are sparsely administered.

Specific Subject Tests

Table 50 presents reported use of specific subject tests.

TABLE 50

Specific Subject Tests Administered:
Principals' Responses

	N	%
Reading:		
Gates-MacGinitie Reading Tests Survey E, Grades 7-9	55	35
Nelson Reading, Grades 3-9	20	6
Mathematics:		
Dominion Survey Test of Arithmetic Fundamentals, Grades 5-8	14	9

As shown, the Gates-MacGinitie Reading Tests (Survey E) are reportedly being used by 35% of principals. Almost one in ten principals report use of the Dominion Survey Test of Arithmetic Fundamentals.

SUMMARY

Overall, it can be seen that a number of published tests are in use at the grade 7 and 8 levels. The Dominion Group Tests and The Canadian Lorge-Thorndike are the most widely used aptitude tests. The Canadian Tests of Basic Skills are the most widely used achievement battery. The Gates-MacGinitie and the Dominion Survey were the most widely used specific subject tests.

VIEWS OF PUBLISHED TESTS AND THEIR USES

This section examines both principals' and teachers' views of the use of published tests. In the case of teachers' responses, information is broken down for the English, Mathematics, Science, Languages, History, Arts, Home Economics and Shop, and Physical Education areas.

INITIATION OF USE OF TESTS

An important question concerns who is responsible for initiating use of these instruments. Tests may be called for by principals, teachers, or others.

Item 46 for Principals

WHO INITIATES THE USE OF PUBLISHED TESTS IN YOUR SCHOOL?

TABLE 51

Initiators of Published Tests Used

	N	%
Class Teacher	75	48
Principal/Vice Principal	115	73
Guidance Counsellor	32	20
Designated Committee	4	2
Head of Department	4	2
Board Consultant	24	15
Board Research Office	22	14
Other	22	14

Principals initiate use of tests in almost 3/4 of the surveyed schools. The classroom teacher also initiates use of tests in almost 1/2 of the schools. Guidance counsellors also can call for use of these tests according to their particular needs and desires.

AVAILABILITY OF RESULTS

Given that much testing is initiated and occurs, it is of importance to examine what type of information is obtained by principals and teachers.

Item 47 for Principals

WHAT KIND OF FEEDBACK ON PUBLISHED TESTS DO YOU RECEIVE FOR ADMINISTRATIVE USE?

TABLE 52

Feedback Received by Principals

	N	%
Individual Student Scores	128	82
Class Summary Data	97	62
School or Board Norms	51	32
Other	7	4

Principals receive individual student data as well as class summary data. One of three principals report school or board norms. Other types of data received include item analyses and histograms of items.

Item 37 for Teachers

WHAT TYPE OF FEEDBACK ON PUBLISHED TESTS DO YOU RECEIVE?

Table 53 presents both overall results for teachers as well as breakdowns into individual subject areas.

TABLE 53

Feedback Received by Teachers

(a) Overall

	N	%
Individual Student Scores	157	72
Class Summary Data	95	43
School or Board Norms	55	25
Others	9	4

(b) Breakdown Into Subject Areas

	Individual Student Scores		Class Summary Data		School Board Norms		Other	
	N	%	N	%	N	%	N	%
English	28	90	15	48	8	26	2	6
Mathematics	29	94	12	39	9	29	1	3
Science	17	59	14	48	8	27	1	3
Languages	24	83	15	52	8	28	0	0
History	18	62	13	45	8	28	1	3
Arts	17	63	10	37	6	22	0	0
Home Ec./Shop	5	33	3	20	1	7	1	7
Phys. Ed.	19	70	13	48	7	26	3	11

Overall, results are similar in most respects to the principal data. There is a slight tendency for teachers to receive less data than principals report, especially in relation to class summary data. However, perusal of the subject breakdown may indicate the sources of some of these discrepancies.

As concerns individual student scores, over 90% of both English and Mathematics teachers report receiving these results, as do a high proportion of Language teachers. Science, Physical Education, History, and Arts teachers also tend to receive results, but to a lesser degree. Quite strikingly, only one in three Home Economics or

Shop teachers receive scores. Home Economics or Shop teachers also report a relatively low rate of receiving class summary data relative to the other areas. About one-quarter of teachers report receiving school board norms. Other types of information received include national norms, general class trends, lists of correct scores, and item analyses.

One note of importance concerning these results may revolve about the incidence or non-incidence of these teachers serving as home room teachers. Possibly teachers reporting relatively lower receipt of scores may not be including perceptions of receiving results that may have been present had they been home room teachers.

Overall, however, English, Mathematics, and Languages teachers report extremely high receipt of individual student test scores.

USE OF RESULTS

A valid question in light of the apparent availability of results to principals and teachers concerns their use in the school.

Item 48 for Principals

HOW ARE RESULTS OF PUBLISHED TESTS USED IN YOUR SCHOOL?

TABLE 54

Principals' Use of Results

	N	%
For Individual Diagnosis and Remediation	130	83
For Program Change	61	39
Grouping	94	60
Other	10	6

Principals report extremely high use of results for individual diagnosis. Less but still important use is made of findings for grouping, while a significant minority report program changes resulting from test scores.

Item 38 for Teachers

HOW DO YOU USE RESULTS FROM PUBLISHED TESTS?

Table 55 presents both overall results for teacher use of results and breakdowns for individual subject areas.

TABLE 55

Teachers' Reported Use of Results

(a) Overall

	N	%
For Individual Diagnosis and Remediation	140	64
For Program Change	68	31
Grouping	97	44
Other	8	4

(b) Breakdown Into Subject Areas

	Individual Diagnosis & Remediation		Program Change		Grouping		Other	
	N	%	N	%	N	%	N	%
English	25	86	13	42	17	55	3	10
Mathematics	25	80	10	32	18	58	0	0
Science	15	52	7	24	12	41	0	0
Languages	21	72	13	45	12	21	0	0
History	18	62	11	38	12	41	0	0
Arts	15	56	6	22	11	41	1	4
Home Ec./Shop	5	33	3	20	3	20	2	13
Phys. Ed.	16	59	5	18	12	44	2	7

Teachers overall report less use of results than that perceived by principals. However, this finding may be a function of some types of teachers making little use of results. The breakdown of scores into subject areas reveals that English, Mathematics, and Languages teachers make extensive use of results for individual diagnosis purposes. Home

Economics and Shop teachers make relatively little use of tests with other area teachers reporting moderate useage. English, Languages, and History teachers make use of tests for program changes. Science, Arts, Home Economics or Shop, and Physical Education teachers do not commonly use test results for this purpose. Grouping is commonly done by all types of teachers except Home Economics or Shop teachers. Other reported uses include high school placement, recommendation to special education, and material selection.

VALUE OF PUBLISHED TESTS

A few questions examine principals' and teachers' general feelings towards published tests, including their perceptions of how pupils view these instruments.

Item 44 for Principals

HOW DO TEACHERS AND ADMINISTRATORS FIND PUBLISHED TESTS?

TABLE 56

Principals' Views of Value of Tests

	Very		Moderately		Not At All	
	N	%	N	%	N	%
Useful	37	30	85	68	3	2
Easy to Administer	36	29	84	68	4	3
Good Use of Class Time	27	22	78	65	12	12
Test Results Used Well	22	18	86	70	14	12
Worthwhile Investment of Time and Money	31	26	82	68	8	7

Principals report that tests are perceived positively by a vast majority of teachers and administrators. Only one in ten principals report tests to be "not at all" of value.

Item 35 for Teachers

HOW DO YOU FIND PUBLISHED TESTS?

Table 57 presents overall scores for teachers' perceptions of the value of tests.

TABLE 57

Overall Teachers' Views of Values of Tests

	Very		Moderately		Not At All	
	N	%	N	%	N	%
Useful	28	16	130	73	19	11
Easy to Administer	90	55	64	39	10	6
Good Use of Class Time	25	15	103	64	34	21
Test Results Used Well	25	15	120	74	18	11
Worthwhile Investment of Time and Money	26	16	110	67	29	18

Overall, teacher results are in most respects similar to principal findings. Teachers find the tests useful and easy to administer. One-fifth of teachers, however, do not feel the tests to be a good use of class time, or overall a good investment. The next few tables present breakdowns of these results into subject areas to locate the source of the differing views.

TABLE 58

Breakdown for Teachers' Views of Tests as Useful

	Very		Moderately		Not At All	
	N	%	N	%	N	%
English	8	21	20	69	1	3
Mathematics	6	21	21	72	2	7
Science	3	14	13	59	6	27
Languages	1	4	24	92	1	4
History	4	19	15	71	2	10
Arts	2	11	14	78	2	11
Home Ec./Shop	3	33	3	33	3	33
Phys. Ed.	1	4	20	87	2	9

Table 58 shows that most types of teachers find results either very or moderately useful. Of some note is the finding that a substantial number of Science teachers (over one-quarter) find the tests not at all useful, in addition to the one-third of Home Economics or Shop teachers indicating such perceptions. A significant portion of English, Mathematics, and History teachers find results very useful.

TABLE 59

Breakdown for Teachers' Views of Tests As Easy To Administer

	Very		Moderately		Not At All	
	N	%	N	%	N	%
English	21	75	6	21	1	4
Mathematics	18	72	6	24	1	4
Science	8	40	10	50	2	10
Languages	14	56	10	40	1	4
History	7	35	13	65	0	0
Arts	7	41	9	53	1	6
Home Ec./Shop	4	50	2	25	2	25
Phys. Ed.	11	52	8	38	2	10

Almost all types of teachers report instruments as easy to administer. English and Mathematics teachers are especially vigorous in this opinion.

TABLE 60

Breakdown for Teachers' Views of Tests As Good Use of Class Time

	Very		Moderately		Not At All	
	N	%	N	%	N	%
English	7	26	15	56	5	18
Mathematics	7	28	14	56	4	16
Science	3	17	11	61	4	22
Languages	1	4	18	69	7	27
History	2	10	15	75	3	15
Arts	0	0	14	82	3	18
Home Ec./Shop	3	38	1	12	4	50
Phys. Ed.	2	10	15	71	4	19

Results indicate that one-quarter of English and Mathematics teachers consider tests as a very good use of class time. Significant minorities of teachers, especially Home Economics or Shop, Languages, and Science teachers, do not consider them at all a good use of time. This result may be expected, as most standardized tests are not relevant to the Languages or Science areas, but are relevant to the English and Mathematics areas.

TABLE 61

Breakdown for Teachers' Views of Results Used Well

	Very		Moderately		Not At All	
	N	%	N	%	N	%
English	7	25	17	61	4	14
Mathematics	6	24	17	68	2	8
Science	3	16	12	63	4	21
Languages	3	12	19	72	2	8
History	3	15	16	80	1	5
Arts	0	0	17	94	1	6
Home Ec./Shop	3	38	3	38	2	25
Phys. Ed.	0	0	19	91	2	10

Most types of teachers feel results are being used well. Again, English and Mathematics teachers most strongly. A significant portion of Science teachers and Home Economics or Shop teachers, however, do not agree.

TABLE 62

Breakdown for Teachers' Views of Tests as a Worthwhile Investment

	Very		Moderately		Not At All	
	N	%	N	%	N	%
English	7	26	15	56	5	18
Mathematics	9	33	15	56	5	18
Science	3	17	10	56	5	25
Languages	0	0	20	80	5	20
History	3	15	16	80	1	5
Arts	1	6	15	83	2	11
Home Ec./Shop	2	29	2	29	3	43
Phys. Ed.	1	5	17	81	3	14

This question may be seen as providing an overall evaluation of the perceived value of published tests. Again, English and Mathematics teachers tend to show the greatest support of these instruments. A significant proportion of teachers, especially in the Science and Home Economics or Shop areas, do not feel them at all worthwhile.

OPTIMAL SCALING

Table 63 presents results of an optimal scaling procedure for these items. Results allow for examination of relative emphasis given to the value of tests by the differing types of teachers.

TABLE 63

Optimal Scaling for Teachers' Views of Values of Tests

	Useful	Easy to Admin.	Use of Time	Results Used Well	Worthwhile
English	24	49	23	23	23
Mathematics	21	47	24	22	26
Science	17	31	19	18	19
Languages	12	39	12	16	10
History	20	28	15	18	18
Arts	16	31	10	10	13
Home Ec./Shop	27	36	29	29	25
Phys. Ed.	12	37	15	10	12

Results indicate that English, Mathematics, and Home Economics or Shop teachers are the most favourable to the use of published tests. Science and History teachers are generally less favourable. Languages, Arts, and Physical Education teachers are the least inclined towards these types of measures. These results may be a function of the degree of relevance that these measures have to the specific content of a subject area.

PUPILS VIEWS OF TESTS

Item 45 for Principals

HOW DO STUDENTS FIND PUBLISHED TESTS?

TABLE 64

Pupils' Views of Tests:
Principals' Responses

	Very		Moderately		Not At All	
	N	%	N	%	N	%
Enjoyable	3	3	81	78	20	19
Challenging	28	26	77	71	4	4
Well Accepted	22	21	76	72	8	7
Threatening	8	8	57	58	34	34
Informative	6	6	69	68	26	26

Principals report moderate to strong acceptance of standardized tests by students.

Item 36 for Teachers

HOW DO STUDENTS FIND PUBLISHED TESTS?

TABLE 65

Pupils' Perceived Views of Tests:
Teachers' Responses

	Very		Moderately		Not At All	
	N	%	N	%	N	%
Enjoyable	11	7	103	64	47	29
Challenging	50	31	96	60	13	8
Well Accepted	29	18	101	63	31	19
Threatening	28	18	60	38	69	44
Informative	11	7	93	60	50	32

Teachers report that students tend to find published tests enjoyable and informative. Tests are moderately accepted, though a majority of teachers report students find them threatening. The following tables report these results broken down into specific subject areas.

TABLE 66

Breakdown of Pupils' Views of Tests as Enjoyable

	Very		Moderately		Not At All	
	N	%	N	%	N	%
English	2	7	16	59	9	33
Mathematics	3	12	17	65	6	23
Science	0	0	11	65	6	35
Languages	2	8	18	69	6	23
History	1	5	17	85	2	10
Arts	1	6	9	53	7	41
Home Ec./Shop	0	0	4	50	4	50
Phys. Ed.	2	10	11	55	7	35

There are no distinctive differences between subject areas, except that relatively few History teachers feel students do not enjoy these tests.

TABLE 67

Breakdown of Students' Perceived Views of Tests as Challenging

	Very		Moderately		Not At All	
	N	%	N	%	N	%
English	8	31	15	58	3	11
Mathematics	11	41	16	59	0	0
Science	6	33	9	50	3	17
Languages	4	15	22	85	0	0
History	8	42	11	58	0	0
Arts	5	31	10	62	1	6
Home Ec./Shop	3	43	1	14	3	43
Phys. Ed.	5	25	12	60	3	15

A significant proportion of the Home Economics or Shop teachers feel students do not find these tests challenging.

TABLE 68

Breakdown of Students' Perceived Views of Tests as Well Accepted

	Very		Moderately		Not At All	
	N	%	N	%	N	%
English	7	28	11	44	7	28
Mathematics	10	38	12	46	4	15
Science	2	12	11	65	4	24
Languages	3	12	18	69	5	19
History	3	15	14	70	3	15
Arts	1	6	17	94	0	0
Home Ec./Shop	2	25	3	38	3	38
Phys. Ed.	1	5	15	71	5	24

Again, no distinctive differences between subject areas emerge.

TABLE 69

Breakdown of Pupils' Perceived Views of Tests as Threatening

	Very		Moderately		Not At All	
	N	%	N	%	N	%
English	5	20	11	44	9	36
Mathematics	5	17	9	31	15	52
Science	2	12	6	35	9	53
Languages	4	16	9	36	12	48
History	5	28	7	39	6	33
Arts	4	27	5	33	6	40
Home Ec./Shop	0	0	3	43	4	57
Phys. Ed.	3	14	10	48	8	38

No distinctive trends emerge.

TABLE 70

Breakdown of Pupils' Perceived Views of Tests as Informative

	Very		Moderately		Not At All	
	N	%	N	%	N	%
English	2	8	11	44	12	48
Mathematics	3	12	17	71	4	17
Science	1	6	9	53	7	41
Languages	1	4	16	64	8	32
History	1	5	17	85	2	10
Arts	0	0	8	53	7	47
Home Ec./Shop	2	25	3	38	3	38
Phys. Ed.	1	5	12	60	7	35

Quite strikingly, Mathematics and History teachers are less likely to say that students do find tests informative. Other teachers' reports vary across the continuum from "very informative" to "not at all informative."

OPTIMAL SCALING

Table 71 presents an optimal scaling for these items.

TABLE 71

Optimal Scaling for Teachers' Views
of Students' Responses to Published Tests

	Enjoyable	Challenging	Well Accepted	Threatening	Informative
English	24	41	32	26	16
Mathematics	31	50	41	16	34
Science	21	39	31	15	20
Languages	30	44	33	18	24
History	36	50	36	29	36
Arts	20	44	42	25	15
Home Ec./Shop	13	27	26	10	26
Phys. Ed.	24	38	29	23	23

There is a clear tendency for History and Mathematics teachers to report generally favourable student attitudes towards testing. No other clear trends emerge from this analysis.

DESIRABILITY OF MORE OR LESS TESTING

This section examines views on whether more or less use of published test is perceived as desirable.

Item 42 for Principals

IN WHAT AREAS WOULD YOU LIKE TO SEE MORE PUBLISHED TESTS?

TABLE 72

Principals' Views on More Testing Desired

	N	%
No Areas	34	22
Scholastic Aptitude	9	6
Survey of Achievement	15	10
Specific Subject Area Achievement	19	12
Diagnostic	44	28
Single-Concept Mastery	28	18
Criterion-Referenced	11	7
Other	5	3

Principals report a desire for more diagnostic and single-concept or mastery tests. One-fifth of principals see no need for more tests. Little need is seen for criterion-referenced measures. Other requests included metric revisions and tests with Canadian norms.

Item 32 for Teachers

IN WHAT AREAS WOULD YOU LIKE TO SEE MORE PUBLISHED TESTS? CONSIDER THIS QUESTION IN A GENERAL SENSE; THAT IS, NOT IN RELATION TO YOUR PARTICULAR SUBJECT AREA.

TABLE 73

Teachers' Desire for More Tests

(a) Overall

	N	%
No Areas	23	10
Scholastic Aptitude	39	18
Survey of Achievement	48	22
Specific Subject Area	86	39
Diagnostic	86	39
Single-Concept Mastery	70	32
Criterion-Referenced	10	4
Other	2	1

(b) Breakdown of Teachers' Desire for More Published Tests

	No Areas		Schol. Apt.		Survey of Ach.		Spec. Subj. Area		Diag.		Single-Conc.		Crit. Ref.		Other	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
English	5	16	6	19	5	16	13	42	14	45	9	29	2	6	1	3
Mathematics	3	10	3	10	7	23	14	45	16	52	13	42	2	6	0	0
Science	1	3	7	24	6	21	9	31	11	38	12	41	1	3	1	3
Languages	2	7	5	17	6	21	13	45	12	45	12	41	1	3	0	0
History	4	14	5	15	8	28	13	45	12	41	11	38	0	0	0	0
Arts	4	15	4	15	7	26	9	33	5	18	4	15	1	3	0	0
Home Ec./Shop	2	13	2	13	2	13	3	20	4	27	2	13	1	7	0	0
Phys. Ed.	2	7	7	26	7	26	12	44	11	41	7	26	2	7	0	0

Teachers report a desire to see quite a bit more available tests. Over one-third would like to see more specific subject area and diagnostic tests. Slightly fewer would like single-concept or mastery measures. Only one in ten see no need for more tests. These figures indicate a real need for tests, according to teachers.

Significant proportions of all types of teachers would like to see more scholastic aptitude and survey of achievement tests. Almost one-half

of all teachers would like to see specific area tests and diagnostic measures. Single-concept measures are especially desired by Mathematics, Science, Languages, and History teachers. Mathematics teachers express the greatest urgency to see more published tests.

Item 43 for Principals

IN WHAT AREAS WOULD YOU LIKE TO SEE LESS USE OF PUBLISHED TESTS?

Item 33 for Teachers

IN WHICH AREAS WOULD YOU LIKE TO SEE LESS USE OF PUBLISHED TESTS?

TABLE 74

Teachers' Desire for Less Use of Published Tests

(a) Overall

	N	%
No Areas	96	44
Scholastic Achievement	31	14
Survey of Achievement	12	6
Specific Subject Area	8	4
Diagnostic	6	3
Single-Concept Mastery	11	5
Criterion-Referenced	8	4
Other	2	1

(b) Breakdown of Teachers' Desire for Less Published Tests

	No Areas		Schol. Apt.		Survey of Ach.		Spec. Subj. Area		Diag.		Single-Concept Mastery		Crit. Ref.		Other	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
English	13	42	6	19	3	10	1	3	1	3	1	3	0	0	0	0
Mathematics	13	42	9	29	3	10	2	6	1	3	0	0	0	0	0	0
Science	11	38	3	10	2	7	1	3	0	0	3	10	3	10	1	3
Languages	14	48	6	21	1	3	2	7	1	3	2	7	2	7	0	0
History	19	66	2	7	2	7	0	0	0	0	1	3	2	7	0	0
Arts	14	52	2	7	0	0	1	4	3	11	2	7	1	4	1	4
Home Ec./Shop	6	40	1	7	0	0	0	0	0	0	2	13	0	0	0	0
Phys. Ed.	18	67	2	7	1	4	1	4	0	0	0	0	0	0	0	0

Like the principals, some teachers would like to see less scholastic aptitude testing.

Prime opposition to scholastic aptitude tests is led by English, Mathematics, and Languages teachers. No other trends are apparent.

ADMINISTRATIVE ASPECTS OF SCORING TESTS

A number of the items of the Principals' Questionnaire examine issues related to scoring of published tests.

Item 49 for Principals

HOW ARE THE PUBLISHED TESTS YOU USED SCORED?

TABLE 75

Scoring Procedures for Published Tests

	N	%
By Hand by Teacher	100	64
By Hand by School Secretary	29	18
By Hand in Board Office	13	8
By Machine	52	33
Other	9	6

Only one-third of principals report that tests are scored by machine. Other responses include by guidance departments and self-scoring.

Item 50 for Principals

IF MACHINE SCORING IS USED, WHO DOES THE SCORING?

TABLE 76

Scources for Machine Scoring

	N	%
Local Board Office	21	34
Local University	4	6
Test Published	30	49
Other	6	10

Most machine scoring is done by test publishers and the local board office. Other responses included another school board, private computer company, and OISE.

Item 51 for Principals

WHAT PROBLEMS HAVE YOU ENCOUNTERED IN MACHINE SCORING?

TABLE 77

Problems Encountered in Machine Scoring

	N	%
None	22	27
Results Too Slow in Coming Back	33	41
Summary Data Not Appropriate to Needs	4	5
Too Costly	15	19
Machines Unavailable	1	1
Other	5	6

When machine scoring is used prime problems involve results arriving too slowly, and the cost of machines. Other problems concern too much data for teachers to digest.

DISCUSSION

This section analizes and summarizes results concerning use and views of published tests at the Intermediate grade 7 and 8 levels. The findings will be contrasted with the results obtained by Wahlstrom and Danley (1977) for the Elementary and Secondary levels. These comparisons will allow for examination of the uniqueness of practices at the grade 7 and 8 levels. The section will close with profiles of practices and views of teachers from the eight subject areas of English, Mathematics, Science, Languages, History, Arts, Home Economics and Shop, and Physical Education.

It is important to note again that many principals who supplied data for this study are also, due to the housing of grades 7 and 8 in many K-8 and 1-8 structures, Elementary school principals. Thus, some proportion of the correlations between findings of Intermediate and Elementary principals will be due to that overlap. However, this reservation does not apply to the case of teacher responses, as data from Intermediate teachers is strictly limited to grade 7 and 8 individuals.

Type and Frequency of Use of Tests

In the present study, one third of principals reported ongoing use of achievement tests, while approximately one in ten reported ongoing use of diagnostic and aptitude tests. Thus, greater emphasis is placed upon achievement tests than aptitude measures.

Concerning occasional use of tests, almost one in three report use of diagnostic tests, one in five use achievement tests, and slightly over one in ten use aptitude measures. These results for the ongoing use of tests are strikingly similar to the findings reported for the Elementary sample by Wahlstrom and Danley. For the occasional use of tests, results for the most part fall midway between those of the Elementary and Secondary samples. Occasional use of aptitude tests is quite similar to levels reported at the Elementary level.

The Dominion Group Tests are the most popular measures at the grade 7 and 8 levels, similar to findings for the Elementary and Secondary levels. The Canadian Tests of Basic Skills are the most widely used

achievement battery, with the total battery for grades 6-7 and 7-8 administered by 20% and 31% of principals, respectively. Wide use of partial batteries is also seen. These figures are quite a bit higher than reported use of the CTBS at the Elementary level.

The Gates-MacGinitie Reading Test, Survey E, is used by 35% of the Intermediate level. Principals report greater use of specific subject tests than other level principals, and is greater than levels reported at the Elementary and Secondary levels. Similar findings are true for the Dominion Arithmetic Survey which indicate greater use of the grade 5-8 test at the Intermediate level than at the grade 3-5 level. Thus, Intermediate principals report relatively widespread use of tests.

Initiation of Use of Tests

The report by 75% of principals that they, or a vice principal, initiate testing, and by 48% of teachers, indicates that a number of individuals have input into testing decisions. These results are strikingly similar to the proportions reported by the Elementary principals in the Wahlstrom and Danley sample.

Frequency of Receipts of Results

Results indicated that 4 of 5 principals received test data for individual students, 3 of 5 received class summary data, while 3 in 10 received school or board norms. These findings are consistently higher than data for the Elementary and Secondary samples. The results are, however, similar to the Elementary data.

Teachers, overall, reported that 7 in 10 received individual student scores, 4 in 10 received class summary data, and 1 in 4 received school or board data. These results are strikingly similar to that reported by Elementary teachers, and indicate relative availability of published test results.

Use of Results

The eight in ten principals reporting results used for individual diagnosis and 4 in 10 for program change, are not distinctive from the Elementary and Secondary samples. Yet the 6 in 10 principals reporting results used for grouping are similar to findings reported for the Elementary sample, and quite dissimilar to Secondary sample findings.

Six in ten Intermediate teachers report results used for individual diagnosis, three in ten for program changes, and four in ten for grouping. Again these findings are not distinguishable from that reported by the Elementary sample, and indicate important use of results for all three purposes mentioned.

Opinions of Published Tests

Most principals and teachers find tests to be useful and worthwhile. In addition, teachers and principals report that students tend to react positively to these tests and find them challenging, enjoyable, and informative. Overall, then, opinions of published tests are quite positive in contrast to the often heard opinions to the contrary. Unfortunately, the Wahlstrom-Danley study did not provide Elementary and Secondary level data for these questions.

Desire For More or Less Testing

Only one in five principals and one in ten teachers expressed no desire for more tests and testing. Principals expressed a desire for more diagnostic, single-concept, specific area, and survey of achievement tests. Higher percentages of teachers expressed a desire for diagnostic, specific subject area, single-concept, survey of achievement, and scholastic aptitude tests. Results for the principals for more tests are not distinctive from Elementary and Secondary data. In their desire for single-concept measures Intermediate principals are similar to Elementary principals.

Concerning teachers' opinions, results are quite informative. For desire for single-concept and scholastic aptitude, test results are similar to the Elementary sample. For desire for more specific subject area and diagnostic tests, results are similar to Secondary level teachers. Apparently, at the Intermediate level, there is a beginning greater emphasis upon specific subject area achievement and less concern with identifying areas of weakness as that provided by diagnostic tests.

Intermediate level teachers, as well as Elementary and Secondary teachers, would like to see less use of scholastic aptitude tests.

Administrative Aspects of Testing

The majority of tests are hand scored either by the teacher or by school staff. When machine scoring is used it is usually done by the test publishor or local board office.

Overall, these findings indicate general satisfaction with published tests, and a general desire for greater availability and use of tests. Concerning use of tests and availability of results, results indicate that grade 7 and 8 principals and teachers are more similar to Elementary level personnel. These findings suggest that, in many instances, grade 7 and 8 practices have many aspects of the Elementary level. The desire by teachers for more subject area tests indicate the beginnings of specialization at this level.

PROFILES OF SUBJECT AREA TEACHERS

Some consistent differences in uses and views of published tests appeared between teachers of different subject areas. Some of the salient characteristics of each type of teacher follows.

English teachers are among those with the greatest utilization of testing results and most have positive attitudes towards these measures. An overwhelming majority received individual scores, and almost half receive class summary data. Nine in ten use results for individual diagnosis and remediation, four in ten for program change, and five in ten for grouping. English teachers feel tests are very useful, easy to administer, and an excellent use of class time. They also feel results are used well. These teachers express strong desires for more specific subject area and diagnostic tests.

Mathematics teachers are also quite positive in views of testing. Mathematics teachers receive individual student scores at a level approaching 100%. Results are used by an overwhelming majority for individual diagnosis, by a majority for grouping, and by 1/3 for program change. Tests are also considered very useful, easy to administer, and a good use of class time. Quite striking is the strength of teachers' views that students find these measures enjoyable, challenging, and not threatening. There is a strong desire expressed by Mathematics teachers for more specific subject area, diagnostic, and single-concept type measures.

Science teachers, while still favourably oriented towards tests and testing, are consistently less so than English and Mathematics teachers. Only a small majority receive individual student data, and less than half receive class summary data. Individual diagnosis is an outcome of test results for only half of the teachers, and a lesser number use results for program changes and grouping. They rate tests as less useful, easy to administer, good use of time, and report results used less well than English and Mathematics teachers.

Science teachers would like to see more use of aptitude tests and single-concept measures. Their desire for specific subject area and diagnostic tests are less strong. The source of this lessened satisfaction may be a function of the lack of specific science subtests in the Canadian Tests of Basic Skills, the most widely used test, or in any other currently used tests. The Stanford, Metropolitan, and Sequential Tests of Educational Progress series do have Science subtests, yet these measures are rarely used in these grades.

Languages teachers are even less positive towards use of tests than Science teachers. While over eight in ten receive individual scores, and over half receive summary data, and they report greater use of tests than Science teachers, they rate them as less useful, less of a good use of time or worthwhile. These findings may be due to available published tests being less relevant to language education than the other areas mentioned. Language teachers, nonetheless, expressed desires for more survey of achievement, specific subject, single-concept, and diagnostic measures.

History teachers report that six in ten, a lesser figure than for English, Mathematics, or Language teachers, receive individual data. Six in ten use results for individual diagnosis, and almost four in ten use them for program change and grouping. History teachers, while finding tests useful, do not consider them as worthwhile and as good a use of time as do the English and Mathematics teachers. Interestingly, they feel exceptionally strongly that pupils find these measures enjoyable, challenging, and acceptable. History teachers would like to see more specific subject, diagnostic, and single-concept measures. The desire for achievement survey tests is especially high.

Arts teachers do not view tests as especially useful, nor as a good use of time. They do not feel that results are especially well used, and do not accept tests as worthwhile investments, compared to other

subject area teachers. In addition, their views of pupils' responses to tests were not especially positive. Nevertheless, they report similar receipt and uses of test results at levels comparable to History and Science teachers, but apparently do not consider them as valuable as other subject area teachers. Arts teachers apparently would like to see more survey achievement tests, but other desires are consistently lower than other subject areas.

Home Economics teachers rarely receive test results, and make little use of these findings. The small sample of teachers in this population, together with three of these teachers giving strong endorsement to questions relating to these measures, gives an artifically inflated score to views of testing. This view, together with their very small desire for more types of tests and testing, suggests that Home Economics/Shop teachers have little concern with use of published tests and their administration.

Physical Education teachers also tend to rate tests as less useful or a good use of time. They do not feel that results are used well, nor do they consider these measures exceptionally worthwhile. Physical Education teachers feel this way in spite of reporting relatively high rates of receiving scores and use of results for individual diagnosis and grouping. It would appear, however, that many teachers may be reporting experiences that occurred as home room teachers, rather than specific use of results in actual physical education classes.
This view might explain the finding that many of these teachers report a desire for more specific subject area and diagnostic type measures.

Results: Communicating About Achievement

OVERVIEW

Intrinsically tied to the concern about maintenance of standards in the schools is the issue of reporting achievement to parents. No matter what evaluation procedures may be in use, the parent, unless informal to their nature and use, will be unaware of the means of measuring their child's progress. There are various means of reporting educational achievement. These methods may include report cards or interviews. Also of importance are the processes by which internal communication occurs, how much information is communicated between teachers about students, and finally, how educational progress is recorded at the school. All these factors are related to the use of achievement data gathered in the classroom.

Items from the Principal and Teachers' Questionnaires inquired into the following areas: reporting to parents, communication within the school, use of computers, interview use, and satisfaction with reporting practices. Where appropriate, teachers' responses are broken down into the eight subject areas of English, Mathematics, Science, Languages, History, Arts, Home Economics and Shop, and Physical Education. The section finishes with a summary of findings.

REPORTING ACHIEVEMENT TO PARENTS

The first few questions enquire into the various means in current use for reporting student progress to parents.

METHOD OF REPORTING

Item 1 for Principals

HOW DOES YOUR SCHOOL REPORT TO PARENTS?

TABLE 78

Methods Used to Report Progress to Parents

	N	%
Interview	217	76
Report Cards	273	96
Other	31	11

Report cards are used in almost all schools to report student progress. Interviews with parents are also used in over three-quarters of the schools studied.

Item 4 for Principals

IF A REPORT CARD IS USED, WHAT FORM OF REPORTING TO PARENTS IS USED?

TABLE 79

Format of the Report Card

	N	%
Letter Systems (e.g. A-F, Excellent-Poor)	124	43
Number Systems (0-100)	159	56
Dual Marking Systems	58	20
Pass-Fail	2	1
Checklists	58	20
Anectodal Comment	121	42
Correspondence with Parents	38	13
Other	67	23

Most principals report use of number systems, with about one-half reporting use of letter systems and anecdotal comments. Dual marking systems and checklists are used by only one in five schools. There appears, therefore, to be marked variability in schools' formats of report cards.

Items 2 and 3 for Principals

HAS YOUR SCHOOL CHANGED THE METHOD OF REPORTING WITHIN THE LAST 3 YEARS? IN WHAT WAYS?

TABLE 80

Changes in Reporting of Achievement

(a) Overall

	N	%
Yes	164	60
No	111	40

(b) Specifics

	N	%
Frequency of reporting increased	63	22
Frequency of reporting decreased	4	1
Report card format changed	147	51
Interview structure changed	56	20
Interview added to written report	58	20
Behaviour specified by skills within a subject	33	11
Self-evaluation by students included	9	3
Pupils ranked by position in class included	6	2
Pupils ranked by position in class discontinued	23	8
Other	36	13

Main changes in reporting involve the changing of the report card format in over half the reported cases. Other reported changes include changing of the interview structure, adding interviews, and increasing the frequency of reporting. These latter changes are reported by approximately one-fifth of the principals.

COMPONENTS OF REPORT CARD INFORMATION

The report card is the predominant method used to report student progress to parents. The type of information that is placed there is garnered from a variety of sources. This section examined the weights given by teachers to various information sources in arriving at a final grade for report to parents. It would be of interest to ascertain whether parents are receiving norm-referenced type data; that is, whether their children's performances are ranked according to the other students in the class or whether grades are assigned in relation to the student's perceived ability.

Item 5 for Principals

IF A REPORT CARD IS USED, RATE THE IMPORTANCE OF EACH OF THE KINDS OF INFORMATION YOU COLLECT.

TABLE 81

Principals' Rated Importance of Report Card Components

	Essential		Important		Limited Value		Not Used	
	N	%	N	%	N	%	N	%
Formal Tests	74	27	144	54	44	16	7	3
Take-Home Assignments	24	9	153	60	68	27	11	4
Take-Home Tests	2	1	21	9	99	24	110	47
Individual Projects	38	14	201	75	27	10	1	0
Group Projects	22	8	155	60	80	31	2	1
Teacher Observations	141	53	102	38	22	8	2	1
Student-Teacher Conferences	34	14	109	44	87	35	17	7
Skills	131	50	144	44	12	5	3	1
Concepts	122	48	155	45	14	5	6	2
Work Habits	103	39	132	50	25	9	5	2
Achievement Related to Ability	87	33	127	48	29	11	21	8
Achievement Related to Class Groups	14	6	87	35	103	41	44	18

Item 1 for Teachers

IF A REPORT CARD IS USED, RATE THE IMPORTANCE OF THE INFORMATION YOU COLLECT.

TABLE 82

Breakdown for Importance of Report Card Components: Formal Tests

	Essential		Important		Limited Value		Not Used	
	N	%	N	%	N	%	N	%
English	6	19	16	52	8	26	1	3
Mathematics	10	33	12	40	6	20	2	7
Science	8	29	14	50	6	21	0	0
Languages	5	18	12	43	10	36	1	4
History	4	14	9	32	14	50	1	4
Arts	2	9	8	35	5	22	8	35
Home Ec./Shop	0	0	4	27	5	33	6	40
Phys. Ed.	3	12	6	23	4	15	13	50

Teachers in most of the academic skills areas consider formal tests as a valuable component of report card information. Interestingly, over half of the History teachers consider tests of either limited value or do not use them. Home Economics or Shop and Physical Education teachers place the least emphasis on these measures.

TABLE 83

Breakdown for Importance of Report Card Components:
Take-Home Assignments

	Essential		Important		Limited Value		Not Used	
	N	%	N	%	N	%	N	%
English	3	10	16	52	11	36	1	3
Mathematics	7	23	11	37	9	30	3	10
Science	0	0	12	43	10	36	6	21
Languages	3	12	7	27	12	46	4	15
History	1	4	16	29	8	30	2	7
Arts	0	0	8	33	7	29	9	38
Home Ec./Shop	1	7	3	20	5	33	6	40
Phys. Ed.	0	0	7	28	2	8	16	64

Take-home assignments are considered especially important by English, Mathematics, and History teachers. Languages and Science teachers also consider them important. Arts, Home Economics or Shop, and Physical Education teachers place lesser emphasis on these assignments.

TABLE 84

Breakdown for Importance of Report Card Components:
Take-Home Tests

	Essential		Important		Limited Value		Not Used	
	N	%	N	%	N	%	N	%
English	0	0	0	0	8	28	21	72
Mathematics	0	0	3	10	5	17	22	73
Science	0	0	0	0	5	20	20	80
Languages	0	0	0	0	5	19	21	81
History	0	0	1	4	9	35	16	62
Arts	0	0	0	0	4	18	18	82
Home Ec./Shop	0	0	0	0	0	0	13	100
Phys. Ed.	0	0	0	0	1	4	23	96

All types of teachers report little emphasis upon take-home tests. One in ten Mathematics teachers consider them important, however.

TABLE 85

Breakdown for Importance of Report Card Components: Individual Projects

	Essential		Important		Limited Value		Not Used	
	N	%	N	%	N	%	N	%
English	5	17	19	63	6	20	0	4
Mathematics	2	7	8	29	9	32	9	32
Science	3	12	18	69	5	19	0	0
Languages	0	0	19	68	8	29	1	4
History	7	25	19	68	2	7	0	0
Arts	2	9	11	50	5	23	4	18
Home Ec./Shop	4	29	4	29	3	21	3	21
Phys. Ed.	1	0	6	24	7	28	11	44

Individual projects are considered either essential or important by most English, Science, Languages, Arts, Home Economics or Shop, and History teachers. A significant proportion of Home Economics or Shop and History teachers consider them essential.

TABLE 86

Breakdown for Importance of Report Card Components: Group Projects

	Essential		Important		Limited Value		Not Used	
	N	%	N	%	N	%	N	%
English	2	7	16	57	10	36	0	0
Mathematics	2	7	4	15	12	44	9	33
Science	2	7	19	68	7	25	0	0
Languages	2	7	11	40	11	41	3	11
History	8	30	15	56	3	11	1	4
Arts	1	5	9	43	5	24	6	29
Home Ec./Shop	0	0	5	42	3	25	4	33
Phys. Ed.	0	0	8	33	5	21	11	46

History teachers place great value upon group projects, as do Science and English teachers. Almost half of all teachers, except Physical Education instructors, consider them important or essential for determining report card grades.

TABLE 87

Breakdown for Importance of Report Card Component:
Teacher Observation

	Essential		Important		Limited Value		Not Used	
	N	%	N	%	N	%	N	%
English	17	61	10	36	1	4	0	0
Mathematics	22	67	10	33	0	0	0	0
Science	16	57	11	39	1	4	0	0
Languages	19	68	8	29	1	4	0	0
History	20	71	6	21	0	0	2	7
Arts	17	74	5	22	1	4	0	0
Home Ec./Shop	12	80	3	20	0	0	0	0
Phys. Ed.	17	68	7	28	1	4	0	0

Teacher observation is of great importance in all subject areas.

TABLE 88

Breakdown for Importance of Report Card Components:
Student-Teacher Conferences

	Essential		Important		Limited Value		Not Used	
	N	%	N	%	N	%	N	%
English	6	22	9	33	6	22	6	22
Mathematics	4	14	10	36	12	43	2	7
Science	5	18	6	22	4	15	12	44
Languages	3	12	14	54	6	23	3	12
History	5	20	7	28	9	36	4	16
Arts	5	2	8	35	3	13	7	30
Home Ec./Shop	2	13	9	60	3	20	1	7
Phys. Ed.	1	4	8	33	5	21	10	42

Student-teacher conferences are of special importance for Arts, English, History, Languages, and Home Economics and Shop teachers. They have limited value for Physical Education and Science teachers.

TABLE 89

Breakdown of Importance of Report Card Components: Skills

	Essential		Important		Limited Value		Not Used	
	N	%	N	%	N	%	N	%
English	15	52	14	48	0	0	0	0
Mathematics	21	70	9	30	0	0	0	0
Science	16	57	10	36	2	7	0	0
Languages	15	56	10	37	1	4	1	4
History	13	50	12	46	1	4	0	0
Arts	13	54	11	46	0	0	0	0
Home Ec./Shop	10	67	5	33	0	0	0	0
Phys. Ed.	14	54	11	42	0	0	1	4

TABLE 90

Breakdown of Importance of Report Card Components: Work Habits

	Essential		Important		Limited Value		Not Used	
	N	%	N	%	N	%	N	%
English	15	50	14	47	1	3	0	0
Mathematics	18	60	12	40	0	0	0	0
Science	16	57	11	39	1	4	0	0
Languages	12	44	12	44	1	4	2	7
History	15	54	11	39	2	7	0	0
Arts	12	52	10	44	1	4	0	0
Home Ec./Shop	9	60	5	33	1	7	0	0
Phys. Ed.	12	46	11	42	1	4	2	8

Work habits are of importance for all subject areas.

TABLE 91

Breakdown of Importance of Report Card Components:
Concepts

	Essential		Important		Limited Value		Not Used	
	N	%	N	%	N	%	N	%
English	13	45	15	52	1	3	0	0
Mathematics	22	73	8	27	0	0	0	0
Science	17	61	9	32	2	7	0	0
Languages	13	48	12	44	0	0	2	7
History	17	61	10	36	1	3	0	0
Arts	9	31	13	57	1	4	0	0
Home Ec./Shop	8	53	5	33	2	13	0	0
Phys. Ed.	9	38	10	41	3	12	2	8

While the importance of concepts is high for all types of teachers, they are especially so for Mathematics and Science teachers.

TABLE 92

Breakdown of Importance of Report Card Components:
Achievement Relative to Ability

	Essential		Important		Limited Value		Not Used	
	N	%	N	%	N	%	N	%
English	13	45	13	45	2	7	1	3
Mathematics	18	62	11	38	0	0	0	0
Science	11	39	15	54	1	4	1	4
Languages	12	43	11	39	4	14	1	4
History	13	46	14	50	1	4	0	0
Arts	13	54	9	38	2	8	0	0
Home Ec./Shop	9	60	6	40	0	0	0	0
Phys. Ed.	12	46	13	50	1	4	0	0

A great majority of all types of teachers consider achievement relative to ability ratings as either essential or important. This is especially so for Mathematics and Home Economics teachers.

TABLE 93

Breakdown of Importance of Report Card Components: Achievement Relative to Class Groups

	Essential		Important		Limited Value		Not Used	
	N	%	N	%	N	%	N	%
English	1	4	12	43	15	54	0	0
Mathematics	2	7	11	37	13	43	4	13
Science	2	7	12	43	11	39	3	11
Languages	0	0	11	41	12	44	4	15
History	2	7	12	44	11	41	2	7
Arts	1	4	10	46	8	36	3	14
Home Ec./Shop	1	8	3	23	7	54	2	15
Phys. Ed.	1	4	10	38	11	42	4	15

Many teachers also consider a student's ability relative to class groups in arriving at a final report card grade. This is especially so for History and Arts teachers.

OPTIMAL SCALING

Table 94 presents results of the optimal scaling of reported importance ascribed by subject area teachers to components of the report card grade.

Overall, most importance is ascribed to teacher observations and skills. Of almost equal importance are concepts, work habits, and achievement related to ability. Take-home tests are of least importance, with achievement relative to class, conferences, projects, formal tests, and take-home assignments of intermediate value. As noted, all teachers consider observation, work habits, and skills, as of equally high importance. In addition, English teachers rely upon projects, achievement related to ability, formal tests, and take-home assignments.

TABLE 94

Optimal Scaling for Importance of Components of Report Card

	Formal Tests	Take-Home Assig.	Take-Home Tests	Indiv. Proj.	Group Proj.	Teacher Observ.	Student-Teacher Confer.	Skills	Concepts	Work Habits	Ach. Abil.	Ach. Class
English	39	37	15	41	38	47	74	46	45	46	44	35
Mathematics	40	37	16	28	26	48	35	48	48	47	47	32
Science	41	30	13	40	49	46	47	46	46	46	44	34
Languages	37	32	13	37	33	47	36	45	44	43	43	31
History	35	36	17	43	42	46	34	46	47	46	45	35
Arts	28	26	13	34	30	48	32	47	45	46	46	33
Home Ec./Shop	24	25	10	35	28	49	38	48	45	46	47	30
Phys. Ed.	25	20	10	24	24	47	36	45	41	43	45	31
Overall	34	30	13	35	32	48	32	48	46	46	46	31

Mathematics teachers place emphasis on achievement relative to ability, formal tests, and take-home assignments.

Science teachers rely upon formal tests and projects.

Language teachers rate all sources as equally important, giving less weight to these sources than English teachers.

Arts teachers give relatively high weights to individual and group projects.

Home Economics or Shop teachers place most emphasis on individual projects and student-teacher conferences.

History teachers rate projects as important, with lesser but still high emphasis upon formal tests and take-home assignments.

Physical Education teachers rely upon the components rated high by all teachers.

USE OF INTERVIEWS

As presented earlier, many principals report the use of interviews to communicate students' progress to parents. This section explores aspects of this procedure for reporting to parents.

Item 8 for Principals

DO YOU HAVE A SCHOOL POLICY THAT REQUIRES TEACHERS TO FOLLOW THE SAME FORMAT ON INTERVIEWS?

TABLE 95

Formal Policy on Interviews

	N	%
Yes	22	9
No	235	91

An overwhelming majority of principals report no formal policy is present regarding the nature of teacher-parent interviews.

Item 4 for Teachers

HOW IS THE INTERVIEW STRUCTURED?

TABLE 96

Structure of Parent-Teacher Interviews

	None		Self-Made Checklist		School-Wide Checklist		Other	
	N	%	N	%	N	%	N	%
English	26	84	7	22	3	10	5	16
Mathematics	20	84	6	19	3	10	2	6
Science	25	86	6	21	4	14	1	3
Languages	18	62	9	31	3	10	0	0
History	23	79	5	17	1	3	3	10
Arts	15	59	5	18	3	11	0	0
Home Ec./Shop	6	40	1	7	1	7	0	0
Phys. Ed.	14	52	4	15	0	0	1	4
Overall	147	67	42	19	18	8	12	6

Most teachers report that there is no formal structure to their parent-teacher interviews. A significant proportion of academic skills and Arts teachers report the use of self-made checklists. Approximately one in ten teachers report the use of school-wide checklists.

PROBLEMS ASSOCIATED WITH INTERVIEWS

Item 6 for Teachers

WHAT DO YOU FEEL ARE THE MAJOR CHANGES NEEDED IN PARENT-TEACHER INTERVIEWS?

Overall, as shown in Table 97, a small proportion of teachers felt there were no major changes needed in the interview. Main concerns were with no shows, parent and teacher education concerning interviews, and to a lesser degree, student participation and more interviews.

TABLE 97

Major Changes Needed in Interviews

	None		Parent Education		Teacher Education		No Shows		Student Participation		More Interviews		Less Interviews		Other	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
English	2	6	9	29	8	26	18	58	10	32	11	36	0	0	4	13
Mathematics	2	6	11	35	9	30	17	55	9	29	7	23	0	0	4	13
Science	3	10	15	51	12	41	20	69	10	34	6	21	0	0	1	3
Languages	2	7	10	34	7	24	18	62	7	24	5	17	0	0		7
History	1	3	13	45	9	31	17	59	7	24	6	21	0	0	2	7
Arts	4	15	9	33	4	15	9	33	3	11	2	7	1	4	2	7
Home Ec./Shop	1	7	3	20	3	20	6	40	0	0	1	7	0	0	0	0
Phys. Ed.	3	11	7	26	5	18	13	48	4	15	4	15	1	4	0	0
Overall	18	1	77	38	57	28	118	59	50	25	42	21	2	1	15	7

English teachers were most concerned with no shows of parents, a need for more interviews, and student participation.

Mathematics teachers were also concerned with no shows, but were also concerned with parent education regarding interviews.

Science teachers were quite concerned with no shows.

Languages teachers were primarily concerned with no shows and parent education.

Arts teachers were concerned, though to a lesser extent, with no shows and parent education.

Home Economics or Shop teachers were concerned with no shows.

History teachers were quite concerned with no shows and parent and teacher education related to interviews.

Physical Education teachers were primarily concerned with no shows, and, to a lesser extent, parent education regarding interviews.

INTERNAL REPORTING TECNHIQUES

A few items deal with within-school techniques for communicating details about student achievement.

Item 12 for Principals

WHAT INFORMATION DO YOUR TEACHERS RECEIVE ABOUT STUDENTS FROM THE PREVIOUS TEACHERS?

TABLE 98

Internal Reporting Techniques:
Principals' Responses

	N	%
None	15	5
Informal Conversations on All Students	124	43
Informal Conversations on Some Students	184	64
Written Reports on All Students	116	41
Written Reports on Some Students	114	40
Other	60	21

Item 8 for Teachers

WHAT INFORMATION DO YOU RECEIVE ABOUT STUDENTS' ACHIEVEMENT IN YOUR DESIGNATED SUBJECT AREA FROM THE PREVIOUS TEACHERS?

Table 99 contains the scaled responses of teachers according the the eight individual subject areas.

USE OF OSR

A few questions ask opinions of the current Ontario Students Record format.

Item 14 for Principals

FOR PURPOSES OF RECORDING STUDENT ACHIEVEMENT, HOW DO YOU RATE THE CURRENT FORMAT OF THE ONTARIO STUDENT RECORD?

TABLE 100

Principals' Ratings of OSR

	N	%
Good	43	16
Acceptable	122	44
Poor	113	41

Item 15 for Principals

WOULD YOU RATHER USE THE PREVIOUS OSR IN PREFERENCE TO THE CURRENT OSR?

TABLE 101

Principals' Preferences for Use of OSR

	N	%
Previous	148	55
Present	119	45

TABLE 99

Internal Reporting Techniques:

Teachers' Responses

	None		Informal Conversations (All)		Informal Conversations (Some)		Written Reports (All)		Written Reports (Some)		Other	
	N	%	N	%	N	%	N	%	N	%	N	%
English	1	3	12	39	20	64	16	52	13	42	5	16
Mathematics	1	3	11	36	19	61	16	52	7	23	2	6
Science	4	14	10	35	13	45	13	45	8	28	3	10
Languages	3	10	6	21	18	62	15	52	6	21	5	17
History	2	7	6	21	19	66	16	55	4	14	3	10
Arts	7	26	9	33	11	41	10	37	7	26	6	22
Home Ec./Shop	8	53	2	13	5	33	2	13	2	13	2	13
Phys. Ed.	4	15	9	33	11	41	12	44	6	22	4	15
Overall	30	14	65	29	116	53	100	46	53	24	30	14

Item 16 for Principals

HOW OFTEN DO TEACHERS IN SCHOOLS USE THE OSR CARDS?

TABLE 102

Principals' Report of Teacher Use of OSR

	N	%
Frequently	48	17
Sometimes	145	52
Rarely	87	31

Item 10 for Teachers

FOR PURPOSES OF RECORDING STUDENT ACHIEVEMENT IN YOUR PARTICULAR SUBJECT AREA, HOW DO YOU RATE THE CURRENT FORMAT OF THE ONTARIO STUDENT RECORD (OSR)?

TABLE 103

Teachers' Rating of OSR

	Good		Acceptable		Poor	
	N	%	N	%	N	%
English	3	10	17	55	11	36
Mathematics	3	10	15	48	13	42
Science	6	21	15	53	7	25
Languages	4	14	18	64	6	21
History	3	10	18	62	8	27
Arts	4	15	12	46	10	38
Home Ec./Shop	0	0	6	54	5	46
Phys. Ed.	1	4	14	54	11	42
Overall	24	11	115	55	71	34

Item 11 for Teachers

FOR PURPOSES OF REPORTING ACHIEVEMENT IN YOUR DESIGNATED SUBJECT AREA, DO YOU PREFER THE CURRENT FORM OF OSR?

TABLE 104

Teachers' Preference for Use of OSR

	Current		Previous		Neither	
	N	%	N	%	N	%
English	11	36	9	29	11	36
Mathematics	10	34	12	41	7	24
Science	12	43	5	18	11	39
Languages	11	42	9	35	6	23
History	11	41	4	15	12	44
Arts	10	38	9	35	7	27
Home Ec./Shop	3	30	2	20	5	50
Phys. Ed.	7	28	8	32	10	40
Overall	75	38	54	27	69	35

SATISFACTION WITH REPORTING PRACTICES

Item 6 for Principals

ARE YOU SATISFIED WITH THE CURRENT REPORTING METHOD AT YOUR SCHOOL?

TABLE 105

Principals' Satisfaction with Reporting Practices

	N	%
Yes	196	73
No	73	27

Item 2 for Teachers

DOES SCHOOL POLICY WITH REGARD TO REPORTING ALLOW YOU TO REPORT ON STUDENT ACHIEVEMENT IN A WAY CONSISTENT WITH YOUR PHILOSOPHY OF TEACHING YOUR SUBJECT?

TABLE 106

Teachers' Satisfaction with Reporting Practices

(a) Overall

	N	%
Yes	184	92
No	16	8

(b) Breakdown by Subject Area

	Yes		No	
	N	%	N	%
English	28	97	1	3
Mathematics	27	93	2	7
Science	24	89	3	11
Languages	22	88	3	12
History	24	96	1	4
Arts	12	86	2	14
Home Ec./Shop	27	100	0	0
Phys. Ed.	20	83	4	17

DISCUSSION FOR COMMUNICATING ABOUT ACHIEVEMENT

This section first reviews findings in procedures for communicating achievement at the Intermediate level. Data is examined in relation to results reported for Elementary and Secondary samples in the Wahlstrom-Danley report. The section closes with profiles of procedures used and favoured by teachers in the various subject areas.

Methods of Reporting

Practically all principals reported use of report cards, while over three in four reported use of interviews. Formats of the report card usually involve letter systems, number systems, and anecdotal comments. The high use of report cards is similar to practices of the Elementary and Secondary samples. Levels of useage of interviews by Intermediate level principals is midway between data for these other samples, and indicates a rather wide use of this technique.

Changes in Reporting

Intermediate principals, by a slight six to four majority, report that these reporting practices have changed recently. Primary changes involved changing the report card format, modification in using interviews, and increasing the frequency of reporting.

Increasing the frequency of reporting and changing the report card format are also typical of the other levels, as reported by Wahlstrom and Danley. Modifications in the interview schedule at this level again fell midway between the Elementary principals who reported increased frequency of such innovations and the Secondary principals who report fewer changes in interview related issues.

Components of Report Card Information

Principals place emphasis on skill concepts, observations, and work habits, as well as relatively strong emphasis upon other procedures, minimizing the impact of take-home tests and teacher-student conferences.

Teachers place greatest emphasis upon skills, observation, concepts, work habits, and achievement relative to ability. Little emphasis is placed upon take-home tests.

Use of Interviews

Only one in ten principals reported the presence of a formal policy concerning interviews. This view is corroborated by teachers who overwhelmingly report the lack of a structure for their interviews. These findings are similar to data reported by Wahlstrom-Danley (1977), and indicate that across all levels of schooling, little administrative structure for interviews is provided. The significant number of teachers who indicate a self-made checklist is similar to the response obtained from the Elementary teachers.

Primary concerns voiced about interviews and interviewing by teachers involve no shows of parents, parent and teacher education re interviews, and student participation in these conferences. These concerns appear quite general, having also been expressed by Elementary and Secondary level teachers.

Internal Reporting Techniques

A high proportion of principals indicate that informal conversations and written reports on students' achievement are used for communication between teachers. Teachers corroborate this finding, indicating widespread use of informal conversations on some students and written reports for all students. These principal findings fall midway between scores reported for the Elementary and Secondary samples. The teacher data does likewise, though the almost half reporting written reports on all students are more related to practices found at the Elementary level.

Use of OSR

Only a small minority of principals find the OSR format good, and over half prefer the previous OSR. Principals by-and-large report that only one in three teachers use these files frequently. Teachers' findings parallel the principal data, indicating a lack of enthusiasm for the current format of the Ontario Student Record.

This relative dissatisfaction with the Ontario Student Record is consistent with findings reported in the Wahlstrom-Danley paper (1977). In most cases Intermediate level results are similar to concerns expressed by Elementary and Secondary level personnel.

Satisfaction with Reporting Practices

The overwhelming satisfaction of both principals and teachers with current reporting practices is similar to results obtained for the other level personnel.

PROFILES OF SUBJECT AREA TEACHERS

This section profiles the subject area teachers' methods and views concerning communicating about achievement. These profiles contain information related to reporting achievement to parents, internal reporting in the school, and use of the OSR.

English teachers rate a wide variety of components of report card grades as important. Of prime importance are teacher observations, skills, concepts, work habits, and achievement relative to ability. Projects are quite important, as are formal tests and take-home assignments. Only take-home tests are downplayed as an important component of report card grades.

Most teachers report that parent-teacher interviews are unstructured. The significant minority which report a degree of structure report use of teacher-made checklists. Concerning these interviews, English teachers report prime concern with no shows of parents, a need for more interviews, and increased student participation in these conferences.

As concerns internal reporting, almost half of the English teachers report that informal conversations are held for all students. The other half report informal conversations are held for some students of special concern. Of some importance are the reports of half the teachers that they receive written reports on all students. A significant additional minority report receiving written reports on some students. Overall, it appears that English teachers have a tight network for communicating about students within the school.

English teachers tend to consider the current Ontario Student Records as acceptable, though significant minorities consider them poor, and express preference for the previous format of the OSR.

Finally, English teachers report overwhelming satisfaction with reporting practices in the schools, feeling that they are consistent with their own philosophies.

Mathematics teachers present a similar picture as to components used in arriving at report card grades. Like English teachers, teacher observations, skills, concepts, work habits, achievement relative to ability, and formal examinations are considered valuable for arriving at report card grades and information. But unlike English teachers, Mathematics teachers downplay the importance of individual and group information.

These teachers also overwhelmingly report that interviews with parents are unstructured. When structure is present, it is usually provided by a teacher-made checklist. Mathematics teachers also are concerned with parent no shows and student participation, and express more of a need for parent education re interviews.

Mathematics teachers also seem to have well-developed internal reporting networks. All teachers report informal interviews on either some or all students. Over half receive written reports on all students.

Teachers are split almost evenly, divided over ratings of the current format of the Ontario Student Record, with almost one-half of teachers rating them as poor. In addition, more Mathematics teachers prefer the previous format of the OSR to the present one.

Finally, these teachers also overwhelmingly express satisfaction with their schools reporting practices, indicating consistency with their own philosophy of reporting.

Science teachers, similar to English and Mathematics teachers, consider their observations, skills, concepts, work habits, achievement relative to ability, and formal tests as important components of report card information.

Most teachers report no formal structure in parent-teacher interviews, though a significant minority report use of teacher-made checklists. Most are concerned with no shows of parents, while close to one-half are concerned with parent and teacher education concerning interviews.

Science teachers report widespread use of informal conversations and written reports for internal communicating about student achievements. These figures, however, are slightly lower than that reported by English and Mathematics teachers.

Science teachers rate the current format of the Ontario Student Record more favourably than English and Mathematics teachers. Only one in four consider them poor, and the number preferring the present format is greater than that preferring the previous format.

Finally, nine of ten are satisfied with current reporting practices, similar to other subject area teachers.

Languages teachers also consider a variety of components as contributing to report card grades. Of particular importance are teacher observations, skills, concepts, work habits, and achievement relative to ability. Formal tests are rated slightly less important than teachers in the other subject areas. Individual and group projects are rated as important, though less so than English and Science teachers.

A significant minority of Language teachers report use of a teacher-made checklist to structure teacher-parent interviews. Language teachers report the greatest use of these checklists of all the subject area teachers. Primary concern with interviews involves no shows of parents. Parent and teacher education re interviews is a concern of a significant minority of teachers.

Half of the teachers report receiving internal school written reports on all students, while almost all conduct informal discussions on all or some students. These figures are consistent with those reported by other area teachers.

Over two-thirds of Language teachers consider the current OSR format as acceptable or good. A minority of these teachers also prefer the current format to the previous OSR.

Almost all Language teachers are satisfied with school reporting practices, though one in ten reported some dissatisfaction.

History teachers rate all components of report cards as important. These involve all areas common to the other areas, but also include individual and group projects. History teachers rate formal tests slightly lower than other academic skills area teachers, though the magnitude is very slight. Overall, History teachers use a wide variety of components in arriving at report card information.

A significant minority of teachers use checklists to structure their parent-teacher interviews, similar to other subject area results. Main interview concerns relate to parent no shows, parent and teacher education, and student participation.

Internal reporting procedures are extremely well developed, similar to English and Mathematics area teachers. Finally, relatively high acceptance is seen for the present format of the OSR.

Overall, rather great similarity is seen for academic area teachers in the areas covered. Prime discrepancies involve Mathematics teachers' relative neglect of individual and group projects. Also of interest is the relative dissatisfaction by English and Mathematics teachers of the current OSR.

Arts teachers rate highly the components rated as important by the other area teachers: teacher observation, skills, concepts, work habits, and achievement related to ability. All other components are rated as values lower than that seen by academic area teachers. These results indicate less concern by these teachers with formal evaluation techniques.

Results on the structure and use of checklists are similar to findings seen for the academic skill areas. These teachers express less concern about parent-teacher interviews. Only one in three Arts teachers express a concern about parent no shows or parent education re interviews. No other concerns are mentioned by any significant minority.

Over one-quarter of Arts teachers report no internal technique for reporting student achievement. While sizable proportions of teachers report use of these techniques, the figures are usually lower than those of the academic area teachers.

A sizable minority of Arts teachers also express dissatisfaction with the current OSR format. These results are not distinctive in relation to other area teachers' responses.

Home Economics or *Shop* teachers, besides highly relying upon skills, concepts, observation, work habits, and achievement related to ability, also rate student-teacher conferences and individual projects of importance. Formal tests, take-home assignments, and group projects are not rated highly.

Little structure is used in teacher-parent interviews, with almost no teachers reporting use of checklists, either self- or school-prepared. This lack of concern with structure of interviews is reflected in the few concerns expressed about interviews. Besides the two of five who express concern about parent no-shows (figures lower than all groups except Arts teachers), no other concern is voiced to a significant degree.

Over half of the Home Economics or Shop teachers report no means for internal communication of information about student achievement. Figures for use of these techniques are uniformly very low.

These teachers are, like the other area teachers, more or less equally split on their opinions of the OSR. No teachers, however, rate the current OSR format as good.

All teachers express satisfaction with reporting practices at their schools, indicating consistencies with their own reporting philosophies.

Physical Education teachers rate all components, besides ones shared by all area teachers, of the report card grade as less important than other subjects. This is especially so for group and individual projects and take-home assignments.

Little structure is in interviews, and only a small proportion use self-made checklists. Half of the Physical Education teachers are concerned about parent no shows, but other concerns about interviews are not mentioned by any great proportion of teachers.

A moderate degree of internal communication seems to occur among teachers, though any one method is always used by less than 50 per cent of teachers reporting.

Only one Physical Education teacher rated the current OSR format as good, though a majority rated it acceptable. Opinion is split concerning preference for the present or previous OSR, with a large proportion favouring neither.

Finally, these teachers are the least of the areas satisfied with school reporting practices, though four of five still expressed satisfaction with school reporting practices.

Results: Training For Assessment

OVERVIEW

Although teaching experience is of great value when student achievement is assessed, education in assessment techniques and in evaluation is a necessity. In the section Ongoing Assessment Procedures questions were asked about test construction, and it was clear that the responsibility for preparation of tests is largely up to the individual teacher. A number of questionnaire items determine resources available to teachers. The sections of this chapter are formal training, training for conducting interviews, printed resource materials, and resource people.

FORMAL TRAINING

Item 28 for Teachers

WHAT FORMAL TRAINING HAVE YOU HAD IN TESTING AND EVALUATION?

TABLE 107

Formal Training in Assessment

	None		Ministry of Education Course		Faculty of Education		Teacher College		Other	
	N	%	N	%	N	%	N	%	N	%
English	8	26	4	13	5	16	15	48	5	16
Mathematics	8	26	4	13	3	10	14	45	9	29
Science	7	24	4	14	2	7	17	59	4	14
Languages	3	10	5	17	2	7	22	76	5	17
History	3	10	4	14	5	17	17	59	8	28
Arts	7	26	5	18	5	18	15	56	1	4
Home Ec./Shop	3	20	3	20	2	13	9	60	0	0
Phys. Ed.	5	18	5	18	1	4	16	59	6	22
Overall	44	20	34	16	25	11	108	50	43	20

Almost half of teachers report having had a teachers college course in assessment. One-fifth report having had no formal training in assessment or some other type of training. Figures are fairly consistent across subject areas. A consistent one in ten teachers report having had a Ministry of Education course and/or Faculty of Education course.

DESIRED RESOURCES

Since teachers are, by and large, responsible for constructing their own tests, inquiry into what resources or training would be desired was made.

Item 29 for Teachers

WHAT RESOURCE WOULD BE OF GREAT VALUE FOR USE IN ASSESSING STUDENT ACHIEVEMENT? Circle one from A and one from B.

TABLE 108

Desired Training Procedures

	Objectives Specification		Construction		Observation Techniques		Scoring	
	N	%	N	%	N	%	N	%
English	9	29	4	13	13	42	0	0
Mathematics	9	29	8	26	9	29	2	6
Science	11	38	5	17	9	31	2	7
Languages	2	7	5	18	11	41	0	0
History	11	38	4	14	10	34	2	7
Arts	2	7	5	18	11	41	0	0
Home Ec./Shop	2	13	0	0	8	53	3	20
Phys. Ed.	6	22	5	18	9	33	1	4
Overall	52	29	36	20	80	45	10	6

TABLE 109

Desired Resources Materials

	Assessment		Reference Library		Specific Curriculum Guidelines	
	N	%	N	%	N	%
English	10	32	5	16	13	42
Mathematics	10	32	6	19	11	35
Science	8	28	6	21	11	38
Languages	6	21	3	10	17	59
History	4	14	7	24	13	45
Arts	5	18	1	4	11	41
Home Ec./Shop	4	27	3	13	6	40
Phys. Ed.	5	18	3	11	11	41
Overall	52	29	34	19	93	52

Teachers would find training in various procedures and availability of various resources of value. Of particular value would be training in observation techniques and the presence of specific curriculum guidelines. Also of value would be training in objectives specification and resources in assessment.

Academic skill area teachers would especially like to have training in objectives specification as well as the other resources mentioned. Other desires are common to all area teachers.

INTERVIEWING SKILLS

Since most schools conduct parent-teacher interviews it is of importance to ascertain what training teachers have in interviewing skills.

Item 7 for Principals

IF A TEACHER-PARENT INTERVIEW IS USED AS PART OF REPORTING PUPIL PROGRESS, WHAT INSERVICE TRAINING IN THE SKILLS OF INTERVIEWING HAVE THE TEACHERS HAD?

TABLE 110

Inservice Interviewing Training:
Principals' Responses

	N	%
None	27	9
Informal Staff Interaction	158	55
Staff Meetings	176	62
Principal/Individual Teachers Conference	100	35
Resource Person from Outside School	21	7
Reference Materials Handed Out	89	31
Other	13	4

Most principals report that inservice training in interviewing skills occurs at staff meetings and informal staff interactions. A prominent minority report that training occurs in conferences and by reference materials handed out

Item 3 for Teachers

IF A TEACHER-PARENT INTERVIEW IS USED AS PART OF REPORTING STUDENT PROGRESS, WHAT INSERVICE TRAINING IN THE SKILLS OF INTERVIEWING HAVE YOU RECEIVED?

TABLE 111

Inservice Interview Training:
Teachers' Responses

(a) Overall

	N	%
None	39	18
Informal Staff Interaction	126	60
Staff Meetings	116	53
Principal-Teacher Conferences	56	26
Outside Resource Person	22	10
Reference Materials	71	33
Other	15	7

As shown in Table 111 (a) and (b) (on following page) a majority of teachers report having received inservice interview training in informal staff interaction and staff meetings. A significant minority report training through principal-teacher conferences and through reference materials. These figures are consistent across teachers in the academic skill areas. There is a tendency for non-academic skill area teachers to report less inservice training in interviewing skills.

CONSULTANT PRACTICES FOR ASSESSMENT INFORMATION

Item 27 for Teachers

WHICH OF THE FOLLOWING DO YOU CONSULT ABOUT ASSESSMENT PROCEDURES, EITHER IN A GENERAL WAY, OR IN REGARD TO YOUR SUBJECT AREA?

(b) Breakdown for Subject Areas of Inservice Interview Training

	None		Informal Staff Interaction		Staff Meetings		Principal-Teacher Conferences		Outside Resource Person		Reference Materials	
	N	%	N	%	N	%	N	%	N	%	N	%
English	5	16	14	45	19	61	10	32	5	16	13	42
Mathematics	3	10	26	83	19	61	12	39	3	10	13	42
Science	8	28	17	59	13	45	10	34	2	7	7	24
Languages	2	7	19	65	19	66	4	14	1	3	9	31
History	5	17	21	72	16	55	5	17	4	14	10	35
Arts	4	15	13	48	15	56	6	22	3	11	7	26
Home Ec./Shop	4	27	3	20	5	33	2	13	2	13	3	20
Phys. Ed.	4	15	13	48	10	37	7	26	2	7	6	22

TABLE 112

Consultants for Assessment Procedures

	Other Teachers		Principal/ Vice-Principal		Guidance Counsellor		Designated Committee		Head of Dept.		Board Consultant		Board Research Officer		Ministry of Education Conslltant		Other	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
English	28	90	24	77	6	19	0	0	0	0	2	6	0	0	1	3	2	6
Mathematics	26	83	22	71	1	3	3	10	0	0	4	13	1	3	2	6	3	10
Science	24	82	23	79	2	7	1	3	1	3	3	10	0	0	1	3	0	0
Languages	20	69	23	79	2	7	0	0	0	0	5	17	0	0	0	0	2	7
History	24	83	24	83	3	10	1	3	1	3	3	10	1	3	1	3	0	0
Arts	15	56	17	63	3	11	0	0	2	7	7	26	1	4	1	4	2	7
Home Ec./Shop	6	40	7	47	0	0	0	0	1	7	1	7	0	0	3	20	1	7
Phys. Ed.	17	63	18	67	0	0	0	0	1	4	5	18	0	0	1	4	1	4
Overall	143	71	168	84	17	8	5	2	6	3	30	15	3	1	10	5	11	6

Most teachers report that they consult, for assessment information, other teachers, the principal, and vice principal. Very few consult board consultants or research officers. Such consultancies are on an informal basis.

DISCUSSION

Formal Training

Though half of teachers report having had a teachers college course in assessment, no other formal training is mentioned by a significant proportion. Quite interesting is the similarity of this finding to the Elementary sample's report in Wahlstrom and Danley (1977). In that study the Elementary sample reports training in teachers college while the Secondary sample report training at the Faculty of Education.

Desired Resources

Teachers desire training in observation techniques, objectives specifications, and test construction. They desire resources such as specific curriculum guidelines, information about assessment procedures, and, to a lesser extent, reference libraries.

The emphasis upon observation techniques is similar to preferences voiced by Elementary teachers.

Summary & Conclusions

SUMMARY

This final section highlights some of the findings of the present study. Sections will discuss aspects of ongoing assessment procedures, use of published tests, communicating results to parents, and training for assessment.

Ongoing Assessment Procedures

A distinctive trend is seen for differences between assessment procedures between academic skill and non-academic subject areas. Consistently greater formal assessment including standardized tests and teacher-made tests are seen for English, Mathematics, Science, Languages, and History teachers. These assessments include both initial type and end-of-unit type evaluations. There may be various reasons for this phenomena. The first involves the possibility that in these areas the subject matter is more amenable to measurement by formal techniques than are the skills involved in non-academic areas. Secondly, and perhaps more importantly, it appears that more formal evaluation occurs in the areas for which published standardized tests are available. This is especially apparent in the case of English and Mathematics teachers who report wide use of standardized measures for initial assessment. It is in these areas that a number of standardized measures are available. This would suggest that if a greater number of measures were available, possibly more formal evaluation would be occurring in the other subject areas, both academic and non-academic.

Overall, the high tendency of Intermediate teachers to report initial assessments, mainly through use of teacher observation, little use

of final examinations, and greater emphasis on these informal assessment procedures indicate that these level teachers use techniques similar to those used by Elementary level teachers, as opposed to Secondary level teachers. Considering that in most cases grades 7 and 8 are housed in K-8 buildings these similarities are not surprising.

There is a tendency for non-academic skill area teachers to report a greater number of problems associated with assessment. These include the subjective nature of the area and the broad range of ability and achievement levels. All areas of teachers rely heavily upon teacher observation for assessing achievement, but academic skill area teachers buttress these evaluations with a number of more formal techniques.

Use of Published Tests

As concerns use of published tests there is widespread belief among both principals and teachers at the Intermediate level that these instruments are valuable and useful. These opinions are especially prevalent among English and Mathematics teachers, and, to a lesser though still important extent, by the other academic skill area teachers. Teachers in the non-academic areas have less positive views of these instruments.

Complementing these overall rather positive views of published tests is the desire of both principals and teachers for the greater availability of specific area, single concept, survey of achievement, and aptitude tests.

Teachers also report high levels of receipt of test scores and report their being used for individual diagnosis, program changes, and grouping. In their receipt and use of testing results, teachers at the Intermediate level show similarities to Elementary level teachers. Principals' responses across all areas of test use are similar, as might be expected for Elementary level principals.

It is important to note that the teachers in the areas of which instruments are available, English and Mathematics report the most positive attitudes towards these measures. The available instruments such as the Stanford and Metropolitan series, which might be relevant to other academic area teachers in that they contain Science and Social Studies subtests, are rarely used at these grade levels.

These findings suggest that when instruments are available for a specific subject area teachers find them valuable and useful. This view

is supported by the desire for more tests by most teachers and principals.

Communicating About Achievement

Concerning components of report card grades, a distinction is again seen between academic skill and non-academic area teachers' practices. Academic skill area teachers tend to rely upon, in addition to teacher observation, formal tests and take-home assignments. Non-academic skill area teachers down-grade the importance of these components, relying upon teacher observation and projects, as well as the components common to all area teachers: skills, concepts, and work habits. There is a tendency on the part of all teachers to place greater emphasis upon the child's achievement relative to his ability, rather than achievement relative to the class.

A majority of principals report a recent change in the manner of reporting achievement. This usually involved changing the format of the report card or increasing the frequency of reporting and including interviews. The current format of report cards for the most part is equally divided between use of letter systems and number systems. Almost half of principals reported use of anecdotal comments.

When interviews are used they follow no set format. An overwhelming majority of these interviews are unstructured, with this decision left to teachers. These interviews have many problems associated with them. Changes are needed concerning parent and teacher education, student participation, and more interviews. The greatest problem reported by all area teachers is no shows by parents. There seems to be a real need to formalize the interview format for communicating achievement information to parents.

There appears to be widespread internal reporting among teachers of information about student achievement. In most cases this reporting is done informally. In the case of special students more formal reporting is accomplished. Internal reporting from teacher to teacher is higher among academic skill area teachers. This result is consistent with the finding of more formalized assessment procedures among these teachers than non-academic skill area teachers.

There is quite a bit of dissatisfaction with the current format of the OSR. Little use is made of them and many teachers and principals prefer the previous edition of the form. This general dissatisfaction is similar to findings reported for the Elementary and Secondary sample reported in the Wahlstrom-Danley paper.

The overall responses of the Intermediate level principals and teachers concerning reporting achievement to parents is not distinctive as compared to the Elementary and Secondary samples. The unstructured nature of the interviews, as well as concerns with interviewing and methods of internal reporting are apparently similar across all levels of school systems.

Training for Assessment

Most teachers report having had one course in assessment procedures either at teachers college or a Faculty of Education, although about 1 in 5 report no such training. There is also reliance upon staff meetings and informal interaction for importing interviewing skills to teachers. Most teachers would desire additional training including information in objectives specification, test construction, and observation techniques. Materials on assessment, reference libraries, and specific curriculum guidelines are desired. Overall, these findings suggest a real need for further training and information for teachers on assessment and evaluation practices, with teachers mainly responsible for assessing student progress. The need for further development of these skills seems especially important. The reliance by most teachers on either principals or vice principals for assessment information raises the question of determining what expertise these individuals have for providing such information. That most Intermediate level teachers report training at a teachers college again indicates similarities between them and Elementary level teachers, and may be causally related to many of the similarities between these two levels presented in this report.

CONCLUSIONS

Distinction Between Academic and Non-Academic Area Evaluation Practices

There is a consistent tendency for academic skill area teachers, especially English and Mathematics, to use more formal and varied methods of evaluation and assessment. This finding may reflect both the nature of the material presented in the classroom and a general greater availability of objective-type instruments. Standardized test and testing tends to be more positively viewed by these academic skill teachers, and a greater number of evaluation components are used in reporting achievement to

parents. These teachers also tend to indicate greater concerns about problems involved with interviews.

Of some importance is the tendency of non-academic skill area teachers to report a greater number of difficulties associated with assessment in their subject areas. This finding may reflect the lack of objective instruments in these areas or the inherently difficult nature of assessing non-academic skills.

There may be a need to both develop and train non-academic skill teachers in developing better ways of assessing student achievement in their areas.

Views of Standardized Tests

Academic skill area teachers, especially in the English and Mathematics areas, have very positive attitudes towards these instruments. All teachers indicate a desire for more instruments in various areas. These findings suggest that some degree of standardized evaluation is of value at the Intermediate level.

Desire for Training in Assessment and Assessment Materials

Most teachers report having had one course or so in assessment techniques. This finding, together with their expressed desire for materials and training suggests a real need in this area.

The Nature of Intermediate Level Assessments

As noted earlier, one focus of the study was an examination of assessment practices at the grade 7 and 8 levels in relation to data reported for the Elementary and Secondary levels. The findings indicate that in many cases practices at this Intermediate level are similar to those seen at the Elementary level. There may be a number of reasons for this. The first may concern the fact that in Ontario many grade 7 and 8 classes are housed in K-8 buildings. Thus, similarities in attitudes and practices between K-6 and 7-8 teachers may be expected. An alternate hypothesis may concern the fact that many 7-8 teachers may be trained in practices and procedures more associated with the Elementary levels. The finding that many Intermediate teachers were trained at teachers colleges indicated similarity with Elementary level teachers' histories. Finally, the possibility that this similarity may be due to the closer

chronological proximity of grades 7-8 to K-6 as opposed to grades 11-13 must be considered. All-in-all the results suggest that in many ways grades 7-8 is an extension of procedures and practices of the Elementary level. The implication of these findings for the educational needs of the early adolescent outlined earlier remain to be explored.

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